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THE UNIVERSITY OF ALBERTA

A STUDY OF THE FACTORS INFLUENCING TEACHER USE OF OUTDOOR INSTRUCTIONAL ACTIVITIES

by

© B. GREGG MEROPOULIS

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS

DEPARTMENT OF PHYSICAL EDUCATION
EDMONTON, ALBERTA

SPRING, 1978

THE UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled "A Study of the Factors Influencing Teacher Use of Outdoor Instructional Activities" submitted by B. Gregg Meropoulis, in partial fulfillment of the requirements for the degree of Master of Arts.

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Supervisor

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Date ..June..2..8..1..77

ABSTRACT

This study sought to describe and analyze outdoor education as an instructional innovation and to identify and analyze those major influencing factors which act to encourage or discourage the adoption of outdoor education by the classroom teacher. The research involved the adaptation of a survey instrument previously used for a similar study. The survey questionnaire was administered to a sample of teachers who were members of the Environmental and Outdoor Education Council of the Alberta Teachers Association.

The teachers were divided into two categories based on their use or non-use of outdoor instructional activities. The responses of the two groups of teachers, to a selected number of variables, were compared and analyzed to determine which factors produced significant differences.

Significant differences were found between the two groups' responses to the following variables: age, previous work with youth groups, familiarity with the outdoors, the attitude of the school administration towards outdoor instructional activities (OIA), procedure involved to obtain permission to use OIA where no transportation was required, money available for transportation for OIA, availability of reference material for OIA, influence of the principal, supervisory staff and local newspapers, effect of OIA on student interest, results of previous experiences, effect of OIA on classroom routine, effect of weather on OIA, student attitude to OIA, knowledge of OIA, understanding of the natural environment, ability to prepare

class for OIA, and the ability to vary approach to instruction.

The results of the study pointed out the apparent lack of adequate teacher preparation in the use of OIA particularly at the college level. Those teachers utilizing OIA generally had received an informal education in the outdoors as a result of previous experiences in the outdoors, as a group leader or as a result of personal interest. This finding would suggest the need for an evaluation of what courses are being offered at the college and university level to prepare future teachers in the use of outdoor instructional activities.

The findings of this study also indicated the administration, both at the system and at the school levels, play key roles in providing the teaching environment which is conducive to teacher use of OIA. Where the administration did not actively promote teacher use of OIA by providing this environment, teachers were discouraged from using this type of instruction. If OIA, as an instructional innovation, is to be successfully diffused within the educational system in the province of Alberta, the complete support of the administration will be required.

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CHAPTER I

STATEMENT OF THE PROBLEM

1. Introduction

> There is no force greater than that of
> an idea whose time has come.
>
> - Victor Hugo -

It was the contention of L.B. Sharp, that certain aspects of the school curriculum could best be taught and learned in an outdoor setting just as the indoor classroom was best suited for teaching and learning other aspects of the curriculum. The term popularized to denote such an approach to learning was "outdoor education". Rogers (Wiener: 1965:53) defines outdoor education as, "...an innovative method of approaching educational objectives through guided, direct, real-life experiences in the out of doors, utilizing as learning materials, the resources of the natural environment." Outdoor education is not confined to any one subject but can be utilized in one form or another by all curricular areas.

A literature review suggests that use of the outdoors for instructional purposes can be traced at least as far back as the philosophies of the early Greek scholar, Aristotle. Such use has however, received mainly limited acceptance as a viable teaching practice. In this regard the twentieth century has been characterized by a number of social and cultural processes which have provided an impetus to the outdoor education movement. Julian Smith et al (1963:4) have outlined several of these factors:

1. Urbanization, with a steady drift into largely populated cities, has deprived many children

and youth from contact with the land,

2. The tempo of modern living is frenzied and much of man's work is specialized and meaningless, depriving him of the opportunities for creative expression formerly associated with the work.

3. Automation and mechanization paradoxically have increased the amount of time for off-the-job living while offering little opportunity for the development of knowledge, skills and attitudes necessary for the worthy use of leisure time.

4. Industry and automation imposed on the long biological pattern of the human being have suddenly removed many of the opportunities for physical exercise, making it necessary to find additional ways of keeping fit.

5. The accumulative effect of the industrial age has created a world of abstractions, words and spectators - thus creating a need for real and first hand experiences in the educative process.

One of the most potent forces behind the recent popularization of the outdoors as a learning environment was an increasing public concern about environmental degradation and the depletion of renewable and non-renewable resources. The development of this "ecological conscience" was evidenced by the 1975 signing of the Belgrade Charter establishing principles and guidelines to be used as a global framework for environmental education. Within Canada, recent government legislation and policies at both the federal and provincial levels have reflected an increased effort to reduce environmental degradation, while stimulating ecological awareness. As educational institutions mirror the values of a society, many universities, colleges and schools implemented environmental studies, stressing the

ecological relationships of humanity with nature and people with each other. Increasingly, Departments of Education throughout the United States and Canada have encouraged the development of outdoor and environmental education programs.

The 1972 Worth Commission on Educational Planning pointed out the need for environmental awareness:

> In the face of rapid deterioration of earth's interlocked life-support systems, we will have to explore, quickly and accurately, all probabilities for survival - both to sustain life and to give it meaning. Environmental Education therefore must dominate our future horizon - if there is to be a future horizon. (1972:192)

The Alberta Department of Education has recognized the potential value of outdoor education as a viable component of a sound education. In amending The School Act of 1970 (see Appendix A), it has provided the enabling legislation to facilitate its growth. Similarly at the school district level, where the outdoors can be utilized as a more effective teaching laboratory than the classroom, many school boards are encouraging them to do so.

As with all instructional innovations, the working end point of the educational change is the classroom teacher. Implementation of this innovation is, to a large extent dependent upon him or her. While many innovative, ambitious Alberta teachers have begun to successfully exploit the educational potential of the outdoors, others have not enjoyed similar successes. An even greater number of teachers in the province have little or no involvement with this approach to instruction.

Considering the educational potential of outdoor

education one would expect that educational researchers would have given some scrutiny to identifying those factors facilitating or inhibiting teacher's use of the outdoor learning environment. Interestingly enough, little systematic attention has been paid these questions. This is particularly true of Alberta.

Recognizing the importance of the classroom teacher as the initiator and implementor of outdoor education and aware of lack of empirical research in this area, this study begins to identify some of those major influencing factors which serve to either encourage or discourage teacher use of the outdoors.

II. The Problem

The central purpose of this project was the identification, evaluation and analysis of those major influencing factors which encourage or discourage the Alberta classroom teacher's adoption of outdoor education as an instructural innovation.

Pursuit of this central purpose took the form of several phases:

Phase I - This phase involved the identification of the philosophical roots of outdoor education, the conceptualization of its introduction as an educational innovation and the analysis of its development within the Alberta school system.

Phase II - Phase two was concerned with the identification of factors encouraging and discouraging the adoption of the outdoor innovation. This phase also involved the compiling of a factor inventory and modification of an existing survey instrument to

suit the nature of this particular research.

Phase III -This phase sought to assess and analyze the relative significance of the factors identified an enhancing or inhibiting teacher use of outdoor instructional activities. It involved the administration of the factor inventory to representative Alberta teachers and the analysis of the results.

III. Theoretical Perspective

As a conceptual, organizational and analytical framework, this research was conducted within the theoretical scheme Rogers (1962) (Cf. Fig. 1-1) developed to describe the adoption of an innovation by an individual or by an organization. Rogers has outlined three sets of variables influencing the teacher's decision to adopt or reject the proposed innovations:

1. Antecedents
   Antecedent variables are composed of two major types, personal factors relating to the teacher's identity and the teacher's perception of the situation.

2. Information Sources
   These variables provide the stimuli in the adoption process and are also composed of two major types. The first type of information variable categorizes the source as cosmopolitan (external) or local (internal). The second type categorizes the source of information as being either personal (person to person) or impersonal (includes mass media and printed or published material).

3. Characteristics of the Innovation
   These characteristics include the relative advantage, compatibility, complexity, divisibility and communicability of the innovation.

FIGURE I - I

PARADIGN OF THE ADOPTION OF AN INNOVATION
BY AN INDIVIDUAL WITHIN A SOCIAL SYSTEM
(ROGERS: 1962)

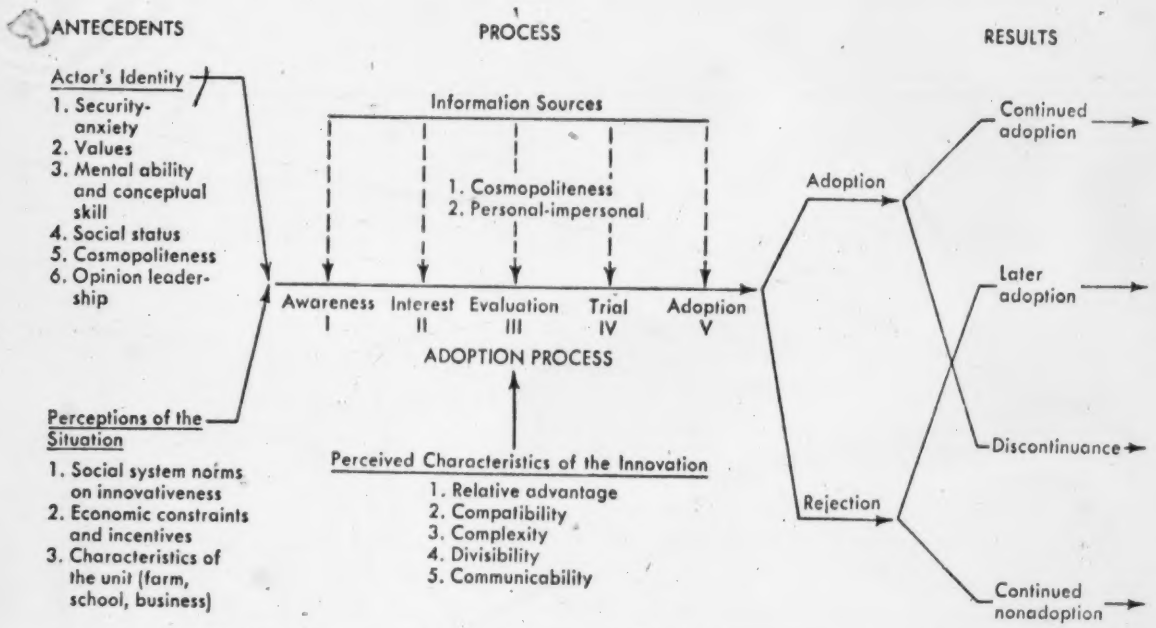

FIGURE II-1. PARADIGM OF THE ADOPTION OF AN INNOVATION BY AN INDIVIDUAL WITHIN A SOCIAL SYSTEM

IV. Assumptions

Throughout the research it was assumed that the survey population; which was comprised of all those Alberta classroom teachers who were members of the Environmental and Outdoor Education Council of the Alberta Teacher's Association, were the best single sources of information for the proposed study. It was also assumed that the teachers who received the survey instrument, possessed all the information necessary to properly complete it.

It was felt that the conduction of such a study could make both practical and theoretical contributions to the body of knowledge.

V. Practical Value

As previously suggested little systematic study of factors encouraging or discouraging adoption of outdoor education has been carried out. This was particularly true with respect to the Alberta situation. A number of the more direct implications were felt to be as follows:

1. A study of this nature may be of some assistance to school administrators in the selection and placement of teachers who are more likely to utilize outdoor instructional activities.

2. School administrators may be assisted in the planning of orientation and in-service programs designed to promote outdoor instructional activities.

3. Teacher's professional organizations may utilize the findings of this study to assist them in the planning of workshops, clinics and seminars for furthering teacher use of the outdoors.

4. Teacher education institutions may find this research helpful when planning how to offer experiences which develop skills and attitudes, in prospective teachers, considered desirable to meet the challenge of effectively and efficiently utilizing the outdoors for instructional purposes.

VI. Theoretical Value

While outdoor education under several labels has a long history, only recently have systematic attempts been made to develop a body of knowledge. The development of the practice of any profession or applied field will only grow as

quickly as its theoretical or conceptual base develops. Outdoor Education, as a method must develop hand in hand with its body of knowledge. The social and human sciences have already begun to accumulate valuable conceptual tools for analyzing, understanding and dealing more effectively with human problems such as those involved in instructional innovation. Rogers' (1962) empirically based theoretical framework for understanding diffusion of innovation is one such conceptual tool which deserves application to the outdoor education field. Such application could not only enhance our understanding of the innovation of outdoor education but also perhaps allow further testing and elaboration of Rogers' work in a new field. It is hoped that the present project might thus contribute in a modest way to both a developing body of knowledge in outdoor education and to the more general field of diffusion of innovations.

VII. Definitions

Influencing Factor - an identifiable element that contributes to a teachers use or non-use of outdoor instructional activities (Hug: 1964).

Outdoor Education - a method of approaching educational objectives through guided direct real life experiences in the out of doors, utilizing as learning materials, the resources of the natural environment. (Rogers, cited in Wiener:1965).

Outdoor Instructional Activities (OIA) - those guided direct real-life experiences that are:

1. Conducted by the classroom teacher in a primarily natural environment such as parks, gardens, preserves, forests, school ground and other open spaces; and,

2. Utilize the natural environment as the major teaching source. (This term was used because of the confusion which exists concerning the definitions of outdoor education and environmental education).

Environmental Education - the educational process dealing with man's relationship with his natural and man-made surroundings and includes the relation of population, pollution, resource allocation and depletion, conservation, transportation, technology and urban and rural planning to the total human environment. (Environmental Education Act of 1970).

Innovation - an idea or practice which departs from those generally prevailing among an aggregate of people who may be regarded as targets of directed change effort. (Lionberger: 1965). For the purpose of this study, the only specific innovation referred to will be that of outdoor instructional activities.

Adoption - a decision to continue full use of an innovation (Rogers: 1962).

Rejection - a decision not to adopt an innovation (Rogers: 1962).

Diffusion - the process by which an innovation spreads (Rogers: 1962).

Change Agent - a professional person who attempts to influence adoption decisions in a direction that he feels is desirable. (Rogers: 1962).

Encouraging Factor - an identifiable element that contributes to a teacher's use of outdoor instructional activities.

Discouraging Factor - an identifiable element that contributes to a teacher's rejection of outdoor instructional activities.

Members of the Environmental and Outdoor Education Council - those individuals who had paid membership fees and were on the mailing list of the council as of March 11, 1977.

Active Classroom Teacher - any teacher who is employed full-time to instruct within an Alberta school system, grades ranging from 1-12 - excluding principals and vice-principals.

VIII. Organization Of The Thesis

The first chapter introduced outdoor education and identified several reasons for its recent popularization. The problem was outlined and arguments were advanced to establish the significance of the study. The conceptual framework in which the research was conducted was discussed as well. Chapter II established the need for educational change and the time lag which exists between educational theory and practice. The second part of the chapter reviews the literature available on the research topic. Chapter III overviews the methodology and instrumentation of the study. Chapter IV is concerned with the analysis of the results and an interpretation of the research findings. Chapter V presents a summary, conclusions and implications.

CHAPTER II

REVIEW OF THE LITERATURE

I. Introduction

The present chapter seeks to initially overview theory and research in the area of educational innovation with particular attention given to the role of the classroom instructor as the innovator. The latter section of the chapter assesses the educational value of outdoor education and reviews the completed research on the subject of identifying factors affecting teacher use of outdoor instructional activities.

II. Changing Social Needs And Educational Innovation

For any organization to function efficiently in a changing environment there must exist within it, a certain flexibility to allow for the adaptation of present practices to meet new demands. In light of this it is imperative that educational institutions possess the ability to recognize the changing values of a society and adapt old methods to meet this challenge of change. This philosophy takes on even a greater meaning in view of the recent exponential growth of our body of knowledge and the tremendous urbanization as a result of the recent population boom. The effect of this pressure is reflected in the gap which exists between educational theory and practice. A review of over one hundred and fifty studies of the institutional quality of school systems led Ross (1955) to generalize that in the past there was a substantial time lag, often amounting to decades, between the recognition

of an educational need and the adoption of an innovation to fill that need. This confirmed earlier studies of Cocking (1951) and Barrington (1953), who estimated that a period of fifty years was not unusual between recognition of a need and the first introduction of an invention to meet that need. This lag from educational theory to practice, prompted Hicks (1960: 109) to comment:

> One of the chief deterrents to educational progress is the inability on many administrators, supervisors and teachers to sense the relationship between a theoretical principle and a course of action which it implies.

Why does this gap exist to such an extent in the field of education? Eichholz and Rogers (Marion: 1966:3) have identified four of the explanations most commonly used to describe the slowness of diffusion and adoption of educational ideas:

1. The absence of scientific sources of innovation in education.
2. The results of innovation are not often immediately tangible.
3. As there is little competition for clients, public schools are not often compelled to innovate.
4. The lack of change agents to promote new educational ideas.

III. Research on Educational Innovation

While early research on educational innovation focused primarily on the school system as the unit of analysis (Rogers: 1957), subsequent studies have directed themselves towards the roles played by key individuals within the system. Innovation diffusion research related to key education roles is summarized below.

A. The Superintendent as Innovator

Research has indicated that the school superintendent

occupies an important position from which to act as an innovator. Carlson (1965) analyzed the effect of the superintendent as the major change agent in innovation. He concluded that the superintendent ultimately was in a position to make the final decisions regarding innovation. MacKenzie (1963:411) has stated that: "In many cases, the superintendent of schools appeared to be the most powerful single participant in change." More recent research by Earle (1968) revealed that Canadian school superintendents felt that the influence for innovation came from within the system and that they as superintendents, were the most significant single influence on innovativeness. However, due to the nature of the balancing role between the teachers and the school board, Gallaher (Carlson: 1965) felt that school administrators were rarely forceful advocates of change.

B. The Principal as Innovator

There have been numerous studies carried out concerning the role of the principal as a change agent. There has been little concensus as to the importance of the principal in this process. Research by Griffiths (1963) had indicated that the principal was not a major factor in the introduction of fresh ideas into the system. These findings concur with those of Eichholz (1955), whose study pointed out that only one of five principals acted the role of the "change agent" and concluded that the principal's role was probably to maintain the status quo rather than promoting change. In sharp contradiction to the conclusions of Griffiths and Eichholz, research

by Demeter (1944) established that the principal was a "key figure" within the process of educational change. Purvis (1961:73) agreed that the principal enjoyed"...an opportunity for bringing about change which is not duplicated by any other individual in the education system." MacKenzie (Miles: 1964:410) revealed that "principals were found to be very influential participants in changing the determiners, (students, subject matter, methods, materials and facilities, time).

C. The Classroom Teacher As Innovator

Research by Earle (1960:128) concluded"...that innovation in Canadian education was initiated and developed by educators..." Earle found evidence that the degree of influence for innovation exerted by classroom teachers, was as great as that exerted by school boards and provincial departments of education.

> The faculty members were not merely determiners of innovations within their respective classrooms but rather were reported to be influential participants in innovation at the system level. (Earle: 1968:128).

Ingram (1965) agreed that classroom teachers were in a very instrumental position with respect to instructional innovation. In a study of junior high teachers, Yakimishyn (1967:18) stated:

> Regardless of what innovations are made at the provincial, system or school levels, innovations at the instructural or classroom level are the ones of major consequence.

Recognizing the importance of the role the teacher must play in the change process, Brickell (1961:23) has stated,"....so as long as he remains inside his classroom he exerts almost

total control."

Given that the classroom teacher plays a very crucial role in the implementation of instructional innovation and recognizing the need for educational innovation to keep pace with our rapidly changing society, it becomes increasingly important to identify those influencing factors which ultimately determine the teacher's adoption or rejection of a particular innovation. Earle (1968:1) commented on the importance of influencing factors:

> The strength of an idea to direct and to motivate change lie not in the idea alone but also lies in those influences which cause the idea to be accepted or rejected.

IV. Assessing The Educational Value of Outdoor Education

Early research into the use of the outdoors for instructional purposes was initiated in the early 1920's during the period in which camping was being popularized. Numerous studies were directed at evaluating the educational merit of such an activity; these included Elwell (1925), Arnold (1928), Dimock and Hendry (1929), Mason (1929), Sharp (1930), McAuliffe (1934), Ward (1935), and Osborne (1936).

With the gradual evolution of camping into a form of school camping and later into outdoor education, further empirical research was carried out to evaluate the educational worth of these new practices. This systematic research included studies by Moore (1948), Irwin (1948), Clarke (1951), McKnight (1952), Donaldson (1952), Rupff (1957), Kranzer (1958), Beker (1959), Stack (1960), Hammerman (1961), and Gibson (1966).

The evidence reported in the studies all concurred that the outdoors environment was a viable teaching resource which could be effectively utilized by educational institutions.

V. Adopting The Outdoor Education Innovation

Although the use of the outdoors for educational purposes has been generally accepted in theory, its limited acceptance as a teaching practice reflects again the lag existing between educational theory and practice. Reasons for this lag have been suggested by several prominent writers in the area of outdoor education. L.B. Sharp (1952:20),one of the fore-fathers of outdoor education movement, outlined his feelings on this subject:

> In the main, teachers are trained to do their work in classrooms and other controlled places. They cannot be expected to discover immediately how to handle groups of children in the classroom of the out-of-doors. A teacher in the out-of-doors has to overcome the fear of not knowing something when she is asked.

In recognizing the lag from theory to practice, Norberg (1952:257) states:

> Teachers recognize the wealth of educational resources which lie in the community outside the school, but there is often a large gap between the recognition of community resources and their actual use in the school program. This lag may be due partly to the fact that some teachers consider field trips hazardous and troublesome.

Palmer (1952:484) also elaborated on the subject of field trips:

> Many teachers have regarded class field trips with strong disfavour. Such trips often take too much time; require special permission from an administrator and

involved problems of transportation, finance, discipline and liability. There is also the possibility that field trips, will promote student questions that are not answered in the textbook.

In summarizing this problem, Gabrielsen and Holtzer (1965:18) have identified fourteen of the major obstacles to the growth of outdoor education in the school systems:

1. Lack of definite policy on outdoor education by state departments of education.
2. Recognition of outdoor education as merely an appendage to one of the special subject fields such as science, physical education, or social studies.
3. Lack of appropriate legislation for outdoor education...to permit total effort by local school districts without fear of overstepping legal boundaries.
4. Absences of programs of outdoor education in most teacher-education institutions preparing teachers to assume leadership in the out-of-doors.
5. Small school sites, particularly in high population density communities, which prevent programs from getting started on school grounds.
6. Unavailability to schools of appropriately located camp sites to resident school camping programs.
7. Lack of acceptance of outdoor education as an integral part of the educational process by school boards and administrators.
8. Paucity of research in outdoor education.
9. Attitude on the part of the public that camping conducted by schools is outside the school's curriculum and is a fad or a frill.
10. Lack of cooperation between conservation agencies of the federal, state and county governments, and schools.
11. Absence of enthusiasm for the program by many teachers, most of whom are untrained for participation and, therefore, feel uncomfortable about their ability to teach or perform in the out-of-doors.
12. In some instances, the demand of teachers for extra compensation for their participation in school camping programs. Teachers claim that it involves twenty-four hour

duty per day and takes them away from their families for a week or more.

13. Lack of funds for the support of local programs and the research in outdoor education.
14. Pressure placed on schools by increasing enrollments and the need for new buildings which has deterred the initiation of new programs which involve additions to the school budget.

(Gabrielsen and Holtzer: 1965:18).

In several recent Canadian surveys of outdoor education programs, efforts have been made to identify those factors which serve to limit outdoor education activities and those factors promoting its use by schools. (Hambleton: 1971, Cowan: 1972, Risdon: 1974).

In a survey of Metropolitan Toronto outdoor education programs by Hambleton (1971), teachers identified those factors which limited their outdoor activity: finding time to do outdoor education; relating outdoor experiences to subject area taught; timetable disruption; transportation problems; and lack of personal preparation for teaching out-of-doors. In the same study, school principals surveyed pointed out that transportation, timetabling, financing and lack of available sites were the major factors they felt which served to limit the growth of outdoor education programs.

A study by Cowan (1972) on teacher attitude and involvement in outdoor education included an open-ended question which asked the respondent to comment on the most important factor influencing their use or non-use of outdoor education. An analysis of the compiled results indicated that the four most important factors deterring teacher use of outdoor education

were:

1. Time
   - required to plan a project,
   - too much time away from the regular curriculum,
   - lack of preparation time,
   - "it cuts into free time",
   - the time involved could be better spent in a classroom.

2. Administrative "Red Tape"
   - problems with timetabling,
   - problems with consent form,
   - unwillingness of administration to provide substitutes.

3. Prohibitive costs
   - especially for transportation.

4. Lack of structure
   - makes measurement of outcomes difficult to determine,
   - classes are usually too large and cumbersome,
   - most attempts at organization are chaotic,
   - students view the event as a holiday.

Cowan's research also pointed out that teachers felt the four most important factors influencing their use of outdoor education activities were as follows:

1. Outdoor Education
   - stresses first hand experiences,
   - involves learning by doing,
   - theory and practice become one,
   - involves a realistic learning situation.

2. Outdoor education increases awareness and sensitivity to the natural environment.

3. Outdoor education inspires pupil interest and in motivational for further theory in the classroom.

4. Outdoor education leads to greater student-teacher co-operation.

In a study by Risdon (1974), involving a survey of outdoor education programs in Alberta, teachers were given a list of sixteen possible factors and asked to identify three factors which facilitated the development of outdoor education in the school and also three factors which were liabilities to the development of such programs. His results indicated that the three factors most often mentioned as being facilitators of outdoor education programs were; availability of sites for desired activities, acceptance of the program by the students, and acceptance of the program by the administrative staff of the school.

Those factors most often identified as being the greatest liabilities to the outdoor education program were; availability of time to do pre-planning and conclude arrangements for projects, availability of funds to carry out the projects and availability of special equipment.

In reviewing the documented research in the area of outdoor education, the author could identify only two studies directly related to ascertaining and explaining the major factors encouraging and/or discouraging teacher use of outdoor instructional activities - Hug (1964) and Mirka (1972).

Hug (1964) developed a list of ninety possible influencing factors and interviewed thirty elementary teachers actively involved in conducting outdoor instructional activities and another thirty elementary teachers who were not utilizing this approach to instruction. Based on comparative analysis of the data received from this survey, Hug reached the following conclusions:

1. Experience in camp leadership influences upper elementary teachers to use outdoor instructional activities to a large degree.
2. Upper elementary teachers who have had more education, who have majored in education, have had their education more recently and who have taken many outdoor related courses are more inclined to use outdoor instructional activities.
3. When a teaching situation involves a small class, sufficient reference materials, adequate teaching aids and equipment, and numerous outside resource people to help the classroom teacher, upper elementary teachers will tend to use outdoor instructional activities in their teaching.
4. Satisfactory results of previous outdoor instructional activities tend to encourage teachers to use outdoor instructional activities in their teaching.
5. Personal interest in the outdoors, interest in trying new things and participation in many outdoor related leisure-time activities tend to result in the use of outdoor instructional activities by upper-elementary teachers.
6. The notion that "textbook" or "basic" materials must be covered and a lack of curricular materials about outdoor instructional activities tend to discourage upper elementary teachers from using outdoor instructional activities in their teaching.

(1964: 184-185).

Mirka (1972), like Hug (1964), compared the results of data obtained from users and non-users of outdoor instructional activities. His questionnaire established the personal background of each teacher, and their ranking of the ten most influential factors causing their use or non-use of outdoor instructional activities, these being selected from a list of twenty-four possible influencing factors accumulated from related literature. The results of the comparison between the groups on the basis of personal background indicated that there was no significant difference.

The most important influencing factors indicated by those utilizing outdoor instructional activities were as follows:

1. The value of this experience to the children.
2. Recognizing the school site as a teaching area.
3. Their knowledge of the application of subject matter to the out-of-doors.
4. Their knowledge of how to plan and conduct outdoor experiences.
5. Their personal feelings about the out-of-doors.
6. Their ability to accept change in their daily routine.
7. Favorable results from previous outdoor experiences.
8. Class size.

Those teachers not using outdoor instructional activities indicated the following factors as being most important:

1. An inability to recognize the school site as a teaching area.
2. Their knowledge of instructional activities that can be carried on outdoors.
3. The availability of resource people.
4. The availability of curriculum guides and curriculum materials.
5. Their knowledge of planning and conducting outdoor experiences.
6. Their knowledge of the application of classroom materials to the out-of-doors.
7. Knowledge of natural science.
8. Class size.

(1972:20)

An analysis of these major factors would seem to indicate that those teachers who utilize the outdoors do so as a result of previous knowledge and experience in this type of environment which gives them the background to recognize the value of such experiences, available outdoor areas, how to apply

course material to these outdoor studies and so forth. In contrast to this, those not using the outdoor environment simply have not had previous experience and/or training in the major aspects of outdoor education so must refer to teaching aids and resource personnel which are often not available to the classroom instructor. One of the most important factors revealed by Mirka's study was that those people utilizing the outdoors for instructional purposes do so from previous experience and not from instruction received during teacher-training. Mirka concluded that the lack of adequate pre-service and in-service teacher training poses the major barrier to the growth of outdoor instructional activities.

VI. Summary

In recognizing the use of outdoor instructional activities as an education innovation, the first section of this chapter focused on the seeming need for educational change but the apparent lag between educational theory and practice. It was shown that the teacher plays a key role in the adoption of instructional innovations and that the success or failure of these innovations are determined largely by those influencing factors which come to bear on the teacher.

The second section of the chapter was directed towards a review of the relevant literature available on the proposed study. It was noted that while some have speculated as to the possible influencing factors affecting the teachers decision whether or not they will utilize the outdoors for instructional purposes, very few studies have actually been carried out. The

studies that have been made all reflect a lack of teacher education as a major barrier to growth of the educational use of the outdoors.

CHAPTER III

METHODOLOGY

I. Introduction

This chapter overviews the research design, the sampling rationale, the instrumentation, procedures used in data collection and the statistical treatment utilized in the analysis. Also included are the delimitations, limitations and the assumptions made during the research.

II. Research Design

The research problem called for the identification and evaluation of those factors playing significant roles in influencing teacher use of outdoor instructional activities by encouraging or discouraging such practices. The methodology used was that of a descriptive survey administered to a purposive representative sample of teachers interested in using the outdoors for instructive purposes. The instrument initially identified the respondent as "active" (a teacher actively utilizing outdoor instructional activities) or "inactive" (not actively conducting outdoor instructional activities). Subsequent questions were asked to obtain responses to a number of selected factors concerning the respondent's personal background, teaching environment, information sources and their knowledge and understanding of outdoor instructional activities. The survey analysis involved comparing the responses of the "active" and "inactive" teachers on each specific variable and where significant differences were observed, that variable was identified as an influencing factor. A second phase of the

analysis involved the reduction of each variable into its component categories and the comparison of the active and inactive members in each specific category with respect to how they felt that factor had influenced their use of outdoor instructional activities as they had indicated on the encouragement/discouragement scale of the survey instrument. (See APPENDIX B.).

III. Sampling Rationale

In identifying those factors which play significant roles in influencing Alberta teachers use of outdoor instructional activities it was important that the survey population possess the following characteristics:

1. the population should be representative of teachers from all geographical regions of Alberta.
2. the population should be representative of teachers from both urban and rural schools.
3. the population should be representative of both sexes of teachers.
4. the population should possess an understanding of what outdoor instructional activities entail.
5. the population should be representative of teachers who regularly use outdoor instructional activities and those who do not use such an approach to instruction but who would wish to do so if conditions were encouraging.

The membership of the Environmental and Outdoor Education Council of the Alberta Teachers Association was selected as the survey population. It was judged that the knowledge and interests of the teacher-members of this council would prove to be a more efficient and effective source of information concerning the encouraging and discouraging factors affecting the use of

outdoor instructional activities than would a survey group who may have little or no conception of such practices.

IV. Environmental and Outdoor Education Council

Formed in the spring of 1976, the organization was to serve as a specialist council in matters pertaining to the environmental and outdoor education. Services offered by this council include the preparation and dissimination of revelant information by way of a newsletter, the hosting of workshops for teacher training and an annual conference for the further exchange of ideas. With a membership of over five hundred, most of whom are teachers, this council provides the important service of transforming new ideas in educational theory into practice in the field situation. Criteria for inclusion in the survey population was that the subject:

1. Must be a full-time classroom teacher in the province of Alberta during the 1976-77 school term.
2. Must teach in the primary, junior, or senior grades. (1-12).
3. Must be on the active mailing list of the council as of March 11, 1977.

V. Construction of the Survey Instrument

The development of a reliable, validated instrument to identify those major factors influencing teacher utilization of outdoor instructional activities was hampered, to a large extent, by the paucity of empirical research on the subject. As previously outlined in Chapter II, only studies by Hug (1964), Mirka (1972) and Cowan (1972) focused on identifying the major factors affecting a teacher's decision to make use of the outdoors.

Each of these studies utilized a different form of instrument for data collection. The instrument developed for this study was based largely around the framework of the one which Hug utilized in his 1964 study of Illinois upper elementary school teachers (Hug:1964). In comparison with the instrument used by Mirka (1972), which involved the rating of selected influencing factors in order of importance or Cowan's (1972) open-ended question approach, Hug's interviews obtained more in-depth responses about teacher background, training and teaching environment. The procedures Hug went through to construct a reliable instrument are worth noting.

A. The Development Of Hug's Instrument

The absence of previous studies in the area forced Hug to review what limited literature available and draw as much information as he could from the many interviews with resource people in the area of outdoor education. Teachers, principals, professors, and outdoor education supervisors all had some input into Hug's first draft of the survey instrument. A series of revisions were made by Hug's thesis committee chaired by T. Deppe and also including noted outdoor educator, Reynold Carlson. The instrument was then reviewed by a ten-man advisory board composed of five national and five local leaders in outdoor education. This board included noteables L.B. Sharp, George Donaldson, Donald Hammerman, Oswald Goering, W.L. Howenstine and J.R. Stanford. Acting on their feedback, Hug made more revisions, and carried out a small pilot study after which more revisions were made by his committee. The final draft of the instrument was again submitted to the advisory board and

received their approval.

B. The Revision of the Instrument

Having decided to design a survey instrument similar to the model used in Hug's research, it became apparent that many revisions would be necessary to make it applicable to this particular research problem.

The interview schedule designed by Hug in 1964 had become outdated in many ways and required many alterations to account for educational changes. The research of Hug focused on upper-elementary teachers in Illinois therefore several revisions were necessary to make it a suitable instrument for surveying those teaching Grades 1 to 12 in Alberta school systems. The major revision in Hug's instrument was in converting it from an outline for an interview into a questionnaire format. Originally designed for a one hour interview, Hug's study involved questions on ninety factors. The length of a similar questionnaire was not feasible so revisions were made.

During the period of constructing the questionnaire, the author was in consultation with Mr. B. Demeriez and Mrs. J. Finlay, outdoor education consultants with the Edmonton Public School Board. Their evaluation of Hug's instrument suggested several deletions and additions. In addition, their feedback on the rough draft of the proposed questionnaire provided valuable assistance to the author, in this aspect of the study.

A revised draft of the instrument was constructed, assembling the influencing factors under the major divisions outlined in Rogers' (1962) model of "diffusion of innovations."

These three categories were antecedent factors, communication sources and characteristics of the innovation.

A review of the survey instrument by the thesis chairman and one committee member produced a number of alterations which were incorporated into the final draft of the questionnaire. This instrument was included in a formal submission to the executive members of the Environmental and Outdoor Education Council. This submission included a letter introducing the nature of the survey and requested their approval to use the council membership as the survey population (see APPENDIX C). The executive reviewed the questionnaire and gave their approval for the survey to be carried out.

VI. Nature Of The Questionnaire

The survey instrument was composed of basically three styles of questions. One of these types was a straight forward multiple choice question. The second style of question asked the respondent to rate a given factor with respect to how that factor influences his or her use of outdoor instructional activities. This rating was based on a five point scale where:

SE = strong encouragement to use OIA.
E = some encouragement to use OIA.
NE = factor has no effect on use of OIA.
D = some discouragement from using OIA.
SD = strong discouragement from using OIA.

The third style of question was essentially a combination of the first two styles. The teacher was asked to respond to a multiple choice question concerning some aspect of their personal background, information sources or some characteristic of outdoor instructional activities. Then, based on this initial

response, they were asked to interpret how that specific factor affected their use of outdoor instructional activities. Again, this rating was on the encouragement/discouragement scale previously discussed.

An additional question sought the subjects open-ended qualitative remarks on other factors they believed to be important in discouraging or encouraging their use of outdoor instructional activities. These comments were utilized only in interpretating the qualitative data and are listed in APPENDIX F.

VII. Administration Of The Survey

One hundred and twenty questionnaires were distributed at the First Annual Environmental and Outdoor Education Conference held on March 11, 12 and 13, of 1977. Of this total, fifty seven were completed and returned. To supplement the survey sample, an additional one hundred members were randomly selected from a list of those members who did not attend the conference. These teachers were mailed a copy of the survey instrument complete with an introductory letter and self-addressed envelope. (see APPENDIX D). Within the following fourteen days, thirty-five questionnaires were returned. A subsequent follow-up letter (see APPENDIX E) produced another ten questionnaires raising the number of mailed returns to fourty-five and the total sample size to one hundred and two. During the analysis it was determined that sixteen of the returned questionnaires contained non-useable data and as such were deleted from the survey reducing the sample to eighty-six teachers. There were various reasons for the deletion of the sixteen questionnaires; a

number of teachers were on leave of absence, others had moved up to administrative positions and no longer qualified as active classroom teachers while several returns were improperly completed. It was felt that the length of the questionnaire and in particular the time required to respond to the interpretive type of questions may have affected the return rate.

TABLE I

SURVEY RETURNS

	No. Given Out	Returned	%
Conference Survey	120	57	47.5
Mailed Survey	100	45	45.0
Totals	220	102	46.4
Spoiled Questionnaires		16	
Total Useable Returns		86	39.1

VIII. Data Analysis and Statistical Interpretation

The information obtained by the survey instrument was coded and recorded on data tabulation sheets. It was then keypunched into IBM cards and analyzed using the Statistical Package for the Social Sciences (SPSS) program of the Michigan Terminal System (MTS) through the Computer Services facility at the University of Alberta.

The statistical analysis of the data obtained in the survey was based on the comparison of a dicotomous variable, teacher use of outdoor instructional activities, to a number of other variables which the literature has suggested play significant roles in influencing the teacher's use of such

activities. "Active" and "inactive" teachers as identified by their use of outdoor instructional activities were compared on their response to numerous antecedent, environmental and communication factors as well as factors concerning the characteristics of outdoor instructional activity. This was made in an attempt to identify what significant relationship exists, if any, between teacher use of outdoor instructional activities and a number of variables. Throughout the analysis, Kendall's tau_c was utilized to determine if significant relationships existed between the variables. This statistic was developed by Maurice Kendall (1955) as a method of measuring the level of agreement or disagreement between the ranking systems. Kendall's tau_c scores range from perfect agreement (+1) to a perfect disagreement (-1). If the two variables are completely unrelated a tau_c score of 0 would be signified.

The formula for the calculation of Kendall's tau_c is as follows:

$$T_c = \frac{S}{1/2\, N^2\, [(m-1)/m]}$$

Where m = Min (r,c)

(Blalock: 1972:421)

Tau_c was most appropriate for the analysis because it could be utilized effectively where there are a large number of ties, as both variables in each comparison had been grouped into categories.

Tau_c was selected over Spearman's Rank Coefficient for the following reasons:

1."...it can be readily used when there are very large numbers of ties"
(Blalock: 1972:421)

2."...it is more amenable to mathematical manipulation"
(Ferguson: 1971:312)

IX. Limitations

The survey was limited by the lack of published empirical research on factors influencing Canadian school teachers use of outdoor instructional activities. The only available research in the area was limited to two studies administered in Ohio and Illinois where teaching environments could vary significantly from that found in a typical Alberta school. A further limitation of the research was that the study was confined to analyzing teacher response to a limited number of selected, possible, influencing factors, as it was virtually impossible to identify all influencing factors. The study was limited to those suggested by selected opinion leaders in the field of outdoor education. An open-ended question was included at the conclusion of the survey instrument to allow the respondent to include any other factor which he/she felt was important in determining their use of outdoor instructional activities.(see APPENDIX F).

X. Delimitations

The study was delimited:

1. to an analysis of selected factors which possibly influence a teacher's inclusion or exclusion of outdoor instructional activities.

2. to an analysis of possible factors influencing the implementation stage in the diffusion of outdoor instructional activities and therefore the unit of adoption was the classroom teacher and not the school administration or the school system.

3. to those teachers who met criteria for inclusion in the study; that is those active, Alberta, classroom teachers in grades one to twelve who were members of the Environmental and Outdoor Education Council of the Alberta Teachers Association.

4. to the analysis of the information supplied by those teachers who voluntarily completed the survey instrument.

5. in that the term instructional innovation was interpreted as teacher use of outdoor instructional activities.

CHAPTER IV

RESULTS AND DISCUSSION

I. Introduction

This chapter contains an analysis of the survey findings and a discussion of their significance in light of previous research that has been documented. The results and discussions have been combined to facilitate easy reference from the interpretations made in the discussion to the results from which those interpretations were made. While all of the results will be described and discussed in this chapter, the large number of tables produced during the analysis of the variables will be included in APPENDIX G. The tables included in this chapter will summarize the significant differences between the active and inactive teachers' responses to a selected number of variables. The table will also summarize comparisons of the responses of the active and inactive teachers in each category of each variable. This comparison will be based on how the teacher's interpret the same factor with respect to its influence on their use of OIA.

The results and discussion of the study will be broadly divided into three major factor categories. These mutually exclusive categories, identified by Rogers (1962) as a model framework to explain the diffusion of innovations include: Antecedents, Information Sources, and Characteristics of the Innovation.

II. Abbreviations Used In the Analysis Of Results and Discussion

Active - This refers to that part of the survey sample which indicated that they had utilized outdoor instructional activities during the 1976-1977 school term.

I.R. - This term refers to the fact that there were insufficient results in that particular category to produce a level of significance statistic.

Inactive - This term is used in reference to those members of the survey sample who indicated that they had not carried out any outdoor instructional activities with their class during the 1976-1977 school term.

PRTOIA - This term refers to the teacher's participation in outdoor instructional activities either as an "active" or "inactive" member.

OIA - This abbreviation is used throughout the discussion to refer to the term outdoor instructional activities.

At least encouraged - This term is to be interpreted as referring to the categories of encouragement (E) and strong encouragement (SE).

At least discouraged - Similar to above except with reference to discouragement (D) and strong discouragement (SD).

III. Antecedent Variables

Antecedent variables are composed of two major types, personal factors relating to the teacher's identity, and teacher's perception of the situation.

TABLE 2

SUMMARY OF THE SIGNIFICANT DIFFERENCES BETWEEN THE RESPONSES OF THE "ACTIVE" AND "INACTIVE" TEACHERS TO A SELECTED NUMBER OF ANTECEDENT FACTORS

VARIABLE	CATEGORY	Tau_c	LEVEL OF SIGNIFICANCE
1. AGE		0.205	0.10
	25	0.237	N.S.
	26-30	0.279	N.S.
	31-40	0.203	N.S.
	40	0.0	N.S.

TABLE 2 (cont'd)

VARIABLE	CATEGORY	Tau_c	LEVEL OF SIGNIFICANCE
2. HEALTH		0.043	N.S.
	GOOD	0.115	N.S.
	FAIR	0.889	N.S.
3. MARITAL STATUS		0.024	N.S.
	SINGLE	-0.166	N.S.
	MARRIED	0.129	N.S.
	DIVORCED	- -	I.R.
4. CHILDREN LIVING AT HOME		0.105	N.S.
	0	-0.208	N.S.
	1	-0.400	N.S.
	2	-0.231	N.S.
	3	0.490	I.R.
	4	-0.889	I.R.
5. BACKGROUND REARING		0.056	N.S.
	URBAN	0.246	N.S.
	SUBURBAN	0.361	N.S.
	RURAL	0.102	N.S.
6. YEARS SINCE LAST ATTENDANCE AT UNIVERSITY		0.035	N.S.
7. DEGREES HELD		-0.085	N.S.
8. MAJOR TEACHING AREA		-0.017	N.S.
	P.ED.	0.360	N.S.
	SCIENCE	0.0	N.S.
	LANG.ARTS	0.066	N.S.
	SOC.STUDIES	- -	N.S.
	MATH	0.0	N.S.
	OTHER	0.750	I.R.
	ELEMENTARY	0.099	I.R.
9. COLLEGE PREPARATION		0.077	N.S.
	YES	-0.257	N.S.
	NO	0.021	N.S.

N.S. = not significant I.R. = insufficient results

TABLE 2 (cont'd)

VARIABLE	CATEGORY	Tau_c	LEVEL OF SIGNIFICANCE
10. WORK WITH YOUTH GROUPS		0.310	0.01
	MUCH	-0.198	N.S.
	SOME	-0.041	N.S.
	LITTLE	0.173	N.S.
	NOT AT ALL	-0.025	N.S.
11. INSERVICE TRAINING		0.188	N.S.
	MUCH	-0.173	N.S.
	SOME	-0.150	N.S.
	LITTLE	0.042	N.S.
	NOT AT ALL	0.331	N.S.
12. EXPERIENCE IN SCHOOL WITH OIA		0.112	N.S.
	YES	0.1250	N.S.
	NO	0.401	0.05
13. INTEREST IN OUTDOORS		0.086	N.S.
	HIGH	0.114	N.S.
	MEDIUM	0.889	I.R.
14. FAMILIARITY WITH THE OUTDOORS		0.276	0.01
	VERY KNOWLEDGEABLE	0.258	0.10
	SOME KNOWLEDGE	0.003	N.S.
	LITTLE KNOWLEDGE	-0.250	I.R.
15. CLASS SIZE		0.020	N.S.
	26	0.059	N.S.
	26-35	0.274	0.10
	35	- -	I.R.
16. GRADE LEVEL		-0.132	N.S.
	1-3	0.0	I.R.
	4-6	0.353	0.10
	7-9	0.172	N.S.
	10-12	0.120	N.S.
17. ADMINISTRATIVE		0.233	0.05
	INHERENT TO	0.360	0.05
	SUPPLEMENTAL TO	0.213	N.S.

N.S. = not significant I.R. = insufficient results

TABLE 2 (cont'd)

VARIABLE	CATEGORY	Tau_c	LEVEL OF SIGNIFICANCE
18. CURRICULAR ORGANIZATION		0.143	N.S.
	SELF-CONTAINED CLASSROOM	0.118	N.S.
	SELF-CONTAINED EXCEPT FOR SPECIAL CLASSES	0.030	N.S.
	ROTATING CLASSES	-0.124	N.S.
19. AVAILABILITY OF CURRICULAR GUIDES		0.099	N.S.
	YES	0.051	N.S.
	NO	0.417	0.10
20. DO CURRICULUM GUIDES REFLECT AN OPPORTUNITY TO USE OIA?		0.183	N.S.
	YES	-0.074	N.S.
	NO	-0.014	N.S.
21. PROCEDURE FOR OBTAINING PERMISSION FOR OIA (NO TRANSPORTATION REQUIRED)		0.197	0.10
	DIFFICULT	-0.063	I.R.
	AVERAGE	0.575	0.05
	SIMPLE	0.196	N.S.
22. PROCEDURE FOR OBTAINING TRANSPORTATION FOR OIA		-0.083	N.S.
	DIFFICULT	0.020	N.S.
	AVERAGE	0.302	0.10
	SIMPLE	-0.027	N.S.
23. DISTANCE LIMITATIONS		0.122	N.S.
	VERY RESTRICTIVE	-0.264	N.S.
	SOME RESTRICTIONS	0.010	N.S.
	LITTLE RESTRICT.	0.410	N.S.

N.S. = not significant I.R. = insufficient results

TABLE 2 (cont'd)

VARIABLE	CATEGORY	Tau_c	LEVEL OF SIGNIFICANCE
24. MONEY AVAILABLE FOR TRANSPORTATION		0.319	0.01
	PLENTIFUL	- -	I.R.
	ADEQUATE	-0.119	N.S.
	INADEQUATE	-0.129	N.S.
	ARE NOT SURE	-0.061	N.S.
25. IS LEGAL LIABILITY AN IMPORTANT FACTOR		-0.003	N.S.
	YES	-0.037	N.S.
	NO	0.295	0.10
26. AVAILABILITY OF REFERENCE MATERIALS		0.274	0.05
	EXCELLENT	0.029	N.S.
	AVERAGE	0.095	N.S.
	POOR	0.166	N.S.
27. AVAILABILITY OF OUTSIDE PERSONNEL		0.131	N.S.
	PLENTIFUL	- -	I.R.
	ADEQUATE	0.040	N.S.
	INADEQUATE	0.242	N.S.
28. AVAILABILITY OF OUTDOOR SITES		0.057	N.S.
	YES	0.202	0.10
	NO	-0.444	I.R.
	ARE NOT SURE	-1.000	I.R.

N.S. = not significant I.R. = insufficient results

1. AGE

The analysis of this variable indicated that the active group were significantly younger than the inactive group at the .10 level of confidence. Specifically 47.3% of the active group were concentrated in the 26-30 age range as compared to the inactive group in which 48.4% indicated they were in the 31-40

age range.

(See APPENDIX G, TABLE 5)

Research on the influence of the factor "age" on diffusion innovation has been largely contradictory. Rogers (1962) illustrated this point when he reviewed three studies where older age is associated with innovativeness, nine studies where younger age has been related to this quality and ten studies where no significant relationship was shown to exist between age and innovativeness. In testing the relationship between age and the use of outdoor instructional activities, Hug (1964) and Mirka (1972) found no significance between these two variables.

The findings of this survey would seem to indicate that the teachers who utilize outdoor instructional activities are, on the average, slightly younger than the teachers who do not utilize such an approach to instruction.

While 46.2% of the teachers, twenty five years old or under were strongly encouraged to use outdoor instructional activities, there was no significant relationship between the active and inactive groups and how they interpreted their age as influencing their use of OIA.

Similarly no significant relationships were shown to exist between the active and inactive group in the 26-30, 31-40 and over 40 age ranges with respect to their age and how it influences their use of OIA. "Age" was generally interpreted by the survey group as having no effect on their use of OIA.

(See APPENDIX G, TABLES 6,7,8,9)

2. HEALTH

The survey results point out that 96.5% of the survey sample rated themselves as being in "good health". Further analysis of the data indicated that no significant differences exist between the active and inactive groups with respect to the variable "health".

These results reflect the findings of Hug (1964) who also found that no significant relationship existed.

(See APPENDIX G, TABLE 10)

No significant differences were found to exist between the active and inactive members who rated themselves as being in "good" health and how they interpreted their health as influencing their use of OIA. Similarly no significant difference was found among those in "fair" health. Generally the teachers felt encouraged to use OIA by the fact that they were in "good" or "fair" health.

(See APPENDIX G, TABLES 11,12)

3. MARITAL STATUS

Seventy seven point nine percent of the survey sample consisted of married teachers. The analysis of the results points out that "marital status" is not a significant factor in discriminating between the two groups of teachers.

(See APPENDIX G, TABLE 13)

The fact that "marital status" is not significantly different between the two groups concurs with the findings of Hug (1964). In view of the time committment involved in the planning and implementation of outdoor instructional activities, it was felt that many married teachers would be discouraged from

using such an approach to instruction. This idea was not supported by the findings of the survey.

Fifty-eight point eight percent of the single teachers in the survey felt encouraged to use outdoor instructional activities because of their marital status although no significant differences were found between the two groups and how they interpreted their single status as affecting their use of OIA. Similarly, no significant differences were observed between the active and inactive teachers in the married and divorced categories and their perception of how their marital status affected their use of OIA. These groups generally interpreted marital status as having no effect on their use of OIA.

(See APPENDIX G, TABLES 14,15,16)

4. NUMBER OF CHILDREN LIVING AT HOME

The results identified 88.4% of the survey sample had less than three children living at home. Further analysis indicated that this variable was not rated significantly different by the active and inactive groups.

(See APPENDIX G. TABLE 17)

The purpose of identifying the number of children living at home was to determine if any relationship existed between teacher use of OIA and home responsibilities. Research by Hug (1964) found that there were generally more children living in the homes of the inactive group. The results of this survey suggest no such relationship.

The survey indicated that no significant differences existed between the active and inactive groups in each category of the variable "children living at home" and how they interpreted

this factor as influencing their use of OIA. For the most part, the teachers surveyed stated that this factor had no effect on their use of OIA.

(See APPENDIX G, TABLES 18,19,20,21,22)

5. BACKGROUND REARING

Analysis of the returns indicated that the survey sample was fairly evenly split with respect to factor "background rearing", 48.8% rural, 37.2% urban. The use of the statistic, Kendall's tau_c on the data determined that no significant relationship exists between "background rearing" and use of OIA.

(See APPENDIX G, TABLE 23)

Previous studies on this factor are contradictory in that Hug(1974), found the active group to have had 2.3 times the rural living experience than did the inactive group while Mirka's (1974) research concluded that no relationship existed between background rearing and teacher use of OIA. It is most interesting to note that the present study indicated within the active group that, rural and urban teachers were evenly divided. One would have expected that being raised within close proximity to the outdoors would have given the rural teachers an increased awareness of the environment and therefore promoted his or her use of OIA. As previously noted, however, no such relationship was shown to exist.

There were no significant differences observed between the active and inactive members who were raised in urban, suburban and rural areas and their use of OIA. Specifically teachers from

an urban background felt that this factor has no effect on their use of OIA while those with suburban and rural backgrounds felt that this factor encouraged their use of OIA.

(See APPENDIX G, TABLES 24,25,26)

6. YEARS SINCE LAST ATTENDENCE AT UNIVERSITY

The largest portion of the survey sample (73.3%) indicated they had attended university within the last five years. An analysis of the results showed that no significant relationship exists between this variable and teacher use of OIA.

(See APPENDIX G. TABLE 27)

This evidence is in agreement with Mirka (1972) but contradicts the findings of Hug (1964) who identified the active teachers as having a more recent education that the inactive teachers.

7. DEGREES HELD

Results of the comparison of "degrees held" to use of OIA indicated that no significant relationship existed between any one degree and the use of OIA. The greatest number of the survey sample held a single education degree (75.9%). The majority of this group was composed of science, physical education and social studies majors.

(See APPENDIX G, TABLE 28)

Hug (1964) concluded that the active group had more education that the inactive while Mirka (1972) found that the factor "degrees held" did not discriminate between the two groups.

8. MAJOR TEACHING AREA

The table of results points out that those active teachers are primarily concentrated within three subject areas, science, physical education and social studies.

(See APPENDIX G, TABLE 29)

The survey generally indicated that physical education, science, social studies and elementary teachers felt that their major teaching area encouraged their use of OIA. Language arts and mathematics teachers in the survey group felt their major teaching area had largely no effect on their use of OIA. No significant differences were observed between the active and inactive groups with respect to how they interpreted their major teaching area as influencing their use of OIA.

(See APPENDIX G, TABLES 30,31,32,33,34, 35,36)

9. COLLEGE PREPARATION FOR OIA

This variable was included to determine if the survey sample felt they had been adequately prepared in college to utilize OIA. While there is no significant difference in the responses of the two groups, what is of significance is the fact that of the total survey sample, only 27.9% felt that their college education properly prepared them to use OIA. Of the active group of teachers, 69.1% of them felt their college education had not adequately prepared them.

(See APPENDIX G, TABLE 37)

Similar results were reported in a study by Risdon (1972) who found that "only one in five respondents have taken credit courses in outdoor education." (p.65). After a cross-

country survey of outdoor education in Canada, Passmore (1972) observed that few teacher-education colleges offer training in outdoor education or field studies. He concluded that more credit courses were needed in outdoor education and environmental studies. Research by Lionberger (1960) positively related the amount of education an individual had, to the rate of their adoption of innovations.

Brickell (1962) has indicated that colleges and universities responsible for teacher education programs "have little influence on instructional innovation in elementary and secondary." (p.85). He also stated that most institutions emphasize professional wisdom in teacher development and do little in the area of specific instructional techniques. In view of the relationship between education and innovation, and in light of the numerous studies which have identified teacher's lack of knowledge in the area of outdoor education, the results of this research on the factor "college preparation for OIA" must be interpreted as being extremely significant and crucial in the diffusion of outdoor education in Alberta.

While the teachers who felt that their college education had adequately prepared them to use OIA were generally encouraged and those who felt their college education had not adequately prepared them to use OIA were generally discouraged, no significant differences were observed between both groups with respect to how they saw this variable as influencing their use of OIA.

(See APPENDIX G, TABLES 38,39)

10. WORK WITH YOUTH GROUPS

This variable was designed to determine if the informal education gained through work with youth groups as a camp counsellor, playground instructor or a similar position, would be significantly related to teacher use of OIA. The results of the survey indicates that the active teachers have had significantly more experience in working with youth groups than have the inactive teachers. This is true at the .01 level of confidence.

(See APPENDIX G, TABLE 40)

These results agree with those of Hug (1964) who identified the active group as having ten times the experience in working in an outdoor environment as a camping leader or as a participant, than did the inactive group of teachers. Mirka (1972) also found the active group to have participated in slightly more work with youth groups than had the inactive group. These results, when viewed with the results of the previous factor "college preparation for OIA" seem to indicate that the active group have gained an informal education in the use of outdoor instructional activities through their work with youth groups rather than a formal education which they are largely unable to obtain through teacher education institutions.

Those teachers who had "much" or "some" experience in working with youth groups felt this had encouraged their use of OIA. Those with "little" experience indicated that this factor had no effect on their use of OIA. Overall, no significant differences were observed between the active and inactive teachers

and how they interpreted their experience in working with youth groups as influencing their use of OIA.

(See APPENDIX G, TABLES 41,42,43,44)

11. INSERVICE TRAINING

This variable was included to determine if "inservice training" was a significant factor in determining teacher use of OIA. The survey showed that this factor was not significant within the .10 level of confidence however it is important to note that 74.5% of the teachers in the active group had received at least "some" inservice education compared to the inactive group 51.6% which had received little or no inservice training.

(See APPENDIX G, TABLE 45)

Donaldson and Goering (1969) have indicated that a relationship exists between teacher competancy in outdoor education and the success of programs of this nature. They have also stated that inservice programs within shcool or school systems, could be utilized as a vehicle for developing teacher skills in planning and implementing outdoor education programs. The results of the survey indicate that inservice training has been widely used by the active group to supplement their knowledge of the outdoors and improve their competancies in outdoor education. This form of learning has greatly aided those teachers who had little formal instruction in this area while at college.

Eighty-eight point nine percent of the teachers who had received "much" inservice training in OIA felt that this had encouraged their use of OIA. Similarly those who received "some" inservice training were generally encouraged to use OIA.

In comparison, those receiving "little" inservice training were largely discouraged from using OIA.

Further analysis indicated that no significant differences existed between the two groups and their interpretation of how inservice training influenced their use of OIA.

(See APPENDIX G, TABLES 46,47,48,49)

12. PREVIOUS EXPERIENCE IN SCHOOLS WITH OIA

The purpose for including this variable was to determine if the experience teachers gained while instructing in a school which had an organized unit of outdoor instructional activities would have a significant effect of their use of OIA. Analysis of the survey data indicated that no relationship existed between the factor "previous experience in schools with OIA" and teacher use of OIA.

(See APPENDIX G, TABLE 50)

Eighty-seven point five percent of the teachers who had taught in schools that had established OIA programs indicated that this factor encouraged their use of OIA. No significant difference was observed between the active and inactive groups with respect to their influence of this variable on their use of OIA.

(See APPENDIX G, TABLE 51)

Of those teachers who indicate no previous experience in a school with OIA, the inactive group were significantly more discouraged from using OIA than the active group who felt this factor had no effect on their use of OIA. This relationship was significant at the .05 level of confidence.

(See APPENDIX G, TABLE 52)

13. LEVEL OF INTEREST IN THE OUTDOORS

The survey results indicated that 93% of the sample stated that they had a "high" level of interest in the outdoors. No significant difference was obtained when this variable was compared to the two groups of teachers.

(See APPENDIX G, TABLE 53)

Reason for this high level of interest in the outdoors by the survey group can be accounted for by the fact that the survey population consisted of members of the Environmental and Outdoor Education Council, which predisposed their interest in the outdoors to a large extent.

Ninety-seven point six percent of the teachers who indicated a high level of interest in the outdoors felt that this factor encouraged their use of OIA. There was no significant difference between the active and inactive groups who rated their level of interest in the outdoors as "high" or "medium" and the way in which they interpreted this factor as influencing their use of OIA.

(See APPENDIX G, TABLES 54,55)

14. FAMILIARITY WITH THE OUTDOORS

The results indicate that the active group of teachers were significantly more knowledgeable about the outdoors than were the inactive group. This relationship was significant at the .01 level of confidence.

(See APPENDIX G, TABLE 56)

These findings concur with earlier studies by Hug (1964), Mirka (1972), Cowan (1972) and Hambleton (1971) which all indicate the existence of a strong relationship between the

teachers knowledge of the outdoors and their use of outdoor instructional activities.

The active group of teachers were significantly more encouraged to use OIA by the fact that they were very knowledgeable about the outdoors than were the inactive group in the same category. This relationship was significant at the .10 level of confidence.

(See APPENDIX G, TABLE 57)

Seventy two point five percent of those teachers with some knowledge about the outdoors felt encouraged to use OIA based on this factor. No significant differences were found between the two groups of teachers in the categories of "some knowledge" and "little knowledge" and how they interpreted this factor as to how it influenced their use of OIA.

(See APPENDIX G, TABLES 58,59)

15. CLASS SIZE

The results of the survey indicated approximately 60% of the sample taught in classes where student numbers ranged from 26-35. No significant difference was noted when the variable "class size" was compared between the two groups of teachers.

(See APPENDIX G, TABLE 60)

These findings concur with those of Hug (1964). On the other hand, Mirka's (1972) results indicated that "class size" was listed by the active group as being an important factor in their decision to use OIA at the same time as the inactive group selected this factor as important in their decision not to use OIA. Passmore (1972) acknowledged that no teacher could instruct 30-40 students in an outdoor environment and suggested

that an optimum qualified leader to student ratio would be 1- (8-10).

Sixty nine point seven percent of the teachers indicated that they were encouraged to use OIA based on the fact that they had less than 26 students in their class(es) however no significant difference was observed between how the active and inactive group saw this factor as influencing their use of OIA.

(See APPENDIX G, TABLE 61)

The inactive teachers were significantly more discouraged from using OIA when the class size ranged from 26-35 students. This relationship was significant at the .10 level of confidence.

(See APPENDIX G, TABLE 62)

Only two teachers had classes of more than 35 students and both were discouraged by this fact.

(See APPENDIX G, TABLE 63)

16. GRADE LEVEL TAUGHT

The teachers in the survey sample taught primarily at the upper elementary (406) and junior high level (7-9).

An analysis of the results indicate that "grade level" is not a significant factor in determining teacher use of OIA.

(See APPENDIX G, TABLE 64)

Hug (1964) also found no significant relationship between grade level taught and teacher use of OIA.

Of those teachers who instructed at the grade 4-6 level, the active group were more encouraged to use OIA because they taught at this level than were the inactive group. This relationship was significant at the .10 level of confidence.

(See APPENDIX G, TABLE 66)

No significant differences were observed between the two group members who instructed the 1-3, 7-9, and 10-12 grade range with respect to how they felt this factor influenced their use of OIA.

(See APPENDIX G, TABLES 65,67,68)

17. ATTITUDE OF ADMINISTRATION

The survey results indicated that the administration of the schools where the active group taught felt that OIA was significantly more inherent to a sound educational program than did the administration of the inactive group, 80.6% of which felt OIA was supplemental to a sound educational program. This relationship was significant at the .05 level of confidence.

(See APPENDIX G, TABLE 69)

These results are supported by findings of Donaldson and Goering (1969) who found that the success of OIA was highly related to the administration of both the school and the school system. It is also important to recognize that 55.6% of the teachers who utilize OIA are doing so in a teaching environment where their administration views the use of OIA as supplemental to a sound educational program.

The survey results indicated that in those schools in which the teachers felt their administration considered OIA as inherent to a sound educational progam, the active teachers were significantly more encouraged to use OIA than were the inactive teachers. This relationship was significant at the .05 level of confidence.

(See APPENDIX G, TABLE 70)

Where the teachers felt the administration considered OIA as supplemental to a sound educational program, there was no significant differences observed between the active and inactive groups with respect to their influence of this factor on their use of OIA.

(See APPENDIX G, TABLE 71)

18. CURRICULAR ORGANIZATION

The categories of this variable were: (1) self-contained classroom, (2) self-contained classroom except for special classes, and (3) rotating classes. Results indicated the survey sample were evenly divided among the three categories. There was no significant difference between the responses of the active and inactive teachers with respect to the variable "curricular organization".

(See APPENDIX G, TABLE 72)

It was felt that the time committment often required to move a class to and from an outdoor site and the fact that many schools had rotating classes would tend to discourage teacher use of OIA. Many instructors have attempted to overcome such restrictions by utilizing the school yard for outdoor studies and by taking their students on weekend outings.

There was no significant difference observed between the members of the two groups in each of the categories of the factor "curricular organization" with respect to how it influenced their use of OIA. In general the sample indicated this factor as having no effect on their use of OIA. Studies by Hug (1964) indicated that when teachers instructed in a self-contained classroom, the active group were encouraged while the inactive

group were discouraged.

(See APPENDIX G, TABLES 73,74,75)

19. AVAILABILITY OF CURRICULUM GUIDES

Seventy point two percent of the total sample indicated that curriculum guides were available for reference. No significant difference was found between the active and inactive groups with respect to the variable "availability of curriculum guides".

(See APPENDIX G, TABLE 76)

Hug (1964) found that this factor had little effect on a teacher's use of OIA.

Of the students who indicated that curriculum guides were available, 76.3% felt that this factor encouraged their use of OIA. No significant difference was observed between the active and inactive groups with respect to how they interpreted this factor as influencing their use of OIA.

(See APPENDIX G, TABLE 77)

When curriculum guides were not available, the inactive group was significantly more discouraged from using OIA than were the active teachers. This relationship was significant at the .10 level of confidence.

(See APPENDIX G, TABLE 78)

20. DO THE CURRICULUM GUIDES REFLECT AN OPPORTUNITY TO USE OIA?

This factor was included to determine if the survey sample felt that the Department of Education's curriculum guides reflected the opportunity for teachers to use OIA. Results indicate that 71.7% of the active group and 51.7% of the inactive group felt curriculum guides did reflect an opportunity for them

to use OIA. When this factor was analyzed to determine if any relationship existed between it and teacher use of OIA, it was found to be insignificant.

(See APPENDIX G, TABLE 79)

No significant differences were observed between the two groups of teachers with respect to the variable "do the curriculum guides reflect an opportunity to use OIA" and its influence on the teachers use of OIA. Where the teachers indicated that the curriculum guide did reflect opportunities to use OIA, 84.9% of the teachers were encouraged to do so.

(See APPENDIX G, TABLES 80,81)

21. PROCEDURE FOR OBTAINING PERMISSION TO USE OIA WHERE NO TRANSPORTATION IS REQUIRED

This variable was included to determine if there was a significant relationship between how difficult it was to obtain permission from the administration to use OIA where no transportation was required and teacher use of OIA. The results indicated that the procedure required to obtain permission for OIA where no transportation was involved was significantly simpler for the active group than it was for the inactive group. This relationship was significant at the .10 level of confidence.

(See APPENDIX G, TABLE 82)

Mirka (1972) found this factor to be insignificant.

When the "procedure for obtaining permission for OIA where no transportation was required" was rated as "average", the active group were significantly more encouraged to use OIA than were the inactive group. This relationship was significant at the .05 level of confidence.

(See APPENDIX G, TABLE 84)

When the procedure involved was rated as "difficult", 75% of the teachers were discouraged from using OIA and when the procedure was rated as "simple", 96.3% of the teachers were encouraged to use OIA. Neither one of these two factors produced significant differences between the responses of the two groups with respect to how the "procedure for obtaining permission to use OIA where no transportation was required" and influenced their use of OIA.

(See APPENDIX G, TABLES 83,85)

22. PROCEDURE FOR OBTAINING PERMISSION FOR OIA WHERE TRANSPORTATION IS REQUIRED

Results indicated that no significant differences existed between the responses of the active and inactive groups with respect to this variable. About 50% of the survey sample described the procedures they had to go through to obtain transportation for OIA as being "average".

(See APPENDIX G, TABLE 86)

Research by Mirka (1972) found no relationship between these two variables.

When the procedure for obtaining transportation for OIA was rated as "average", the teachers in the active group were significantly more encouraged to use OIA than were the teachers in the inactive group. This relationship was significant at the .10 level of confidence.

(See APPENDIX G, TABLE 88)

Where the procedure for obtaining transportation was rated "difficult", 80% of these teachers were discouraged from

using OIA. Ninety-five point two percent of the teachers who rated the procedure as being "simple" were at least encouraged to use OIA. No significant differences were observed between the two groups of teachers and how they felt that "simple" and "difficult" procedures for obtaining permission for OIA where transportation was required, influenced their use of OIA.

(See APPENDIX G, TABLES 87,89)

23. DISTANCE LIMITATIONS

The analysis of results pointed out that there was no significant differences between the active and inactive groups and their responses to the variable "distance limitations on travel to outdoor sites". Sixty four percent of the survey sample indicated that their administration had placed "some restrictions" on the distance which teachers could travel to outdoor sites.

(See APPENDIX G, TABLE 90)

Seventy two point eight percent of those teachers, who indicated that limitations placed on the distance they could travel for OIA as "very restrictive" were at least discouraged from using OIA. Where this variable was rated "some restrictions" most of the teachers indicated that it had no effect on their use of OIA. When there was "little restrictions" on distance limitations, 85% of the teachers were encouraged to use OIA. There was no significant difference between the active and inactive teachers and how they rated any of the three categories of distance limitation as influencing their use of OIA.

(See APPENDIX G, TABLES 91,92,93)

24. MONEY AVAILABLE FOR TRANSPORTATION

The survey results pointed out that the active group, when compared to the inactive with respect to the variable "money available for transportation", had more money available for transportation. This relationship was significant at the .01 level of confidence.

(See APPENDIX G, TABLE 94)

Transportation costs have been identified as one of the major factors limiting teacher use of OIA. (Passmore: 1972, Hambleton: 1971, and Cowan: 1972).

There was no significant differences in how the active and inactive groups rated the various categories of the variable "money available for transportation" and its influence on their use of OIA. When the money available for transportation was rated as "inadequate", 74.5% of the teachers felt discouraged from using OIA.

(See APPENDIX G, TABLES 95,96,97,98)

25. LEGAL LIABILITY

The purpose for including this variable was to determine if the survey sample considered "legal liability" as an important factor in their use of outdoor instructional activities. The results pointed out no significant difference existed in the responses of the active and inactive groups to this variable. It is important to note that more than one half of the teachers in the sample felt that legal liability was an important factor to be considered when making decision about the use of OIA.

(See APPENDIX G, TABLE 99)

Hug (1964) found that concern for legal liability had no relationship to teacher use of OIA. Cowan (1972) however did find that teacher apprehension about responsibility in case of an accident and the fact that teachers were unfamiliar with liability insurance served to limit their use of OIA.

Where legal liability was indicated as not being a major concern to the teachers, the active group were significantly more encouraged to use OIA than the inactive group, the majority of which felt that not being concerned about legal liability had no effect on their use of OIA. This relationship was significant at the .10 level of confidence.

(See APPENDIX G, TABLE 101)

Where legal liability was considered an important factor, the majority of teachers were discouraged from using OIA. No significant difference was found between active and inactive teachers and how they interpreted this factor as influencing their use of OIA.

(See APPENDIX G, TABLE 100)

26. AVAILABILITY OF REFERENCE MATERIAL

Survey results indicated that the active teachers had a significantly greater availability of reference material than the inactive group, of which 58.1% of them rated this variable as "poor". Availability of reference material was significantly related to teacher use of OIA at the .05 level of confidence.

(See APPENDIX G, TABLE 102)

These findings are in contrast to those by Hug (1964) who found no significant difference between the responses of active and inactive groups with respect to the factor "availability

of reference materials". Where availability of reference material was rated "excellent" all of the survey group in this category were at least encouraged to use OIA. Where this variable was indicated as being "poor" the majority of these teachers felt discouraged from using OIA.

No significant differences were observed between the two groups and how they interpreted any of the categories of "availability of reference material" with respect to how they influenced their use of OIA.

(See APPENDIX G, TABLES 103,104, 105)

27. AVAILABILITY OF OUTSIDE PERSONNEL

Research findings indicated that no significant difference existed between the responses of the active and inactive teachers to the variable "availability of outside personnel". The majority of the survey sample felt that there was an "adequate" availability of outside personnel.

(See APPENDIX G, TABLE 106)

Where the teachers indicated a definite lack of outside personnel, 87.0% felt that this factor at least discouraged them from using OIA. There were no significant differences observed between the active and inactive groups in each of the three categories of this variable and how they interpreted this factor as influencing their use of OIA.

(See APPENDIX G, TABLES 107, 108,109)

28. AVAILABILITY OF OUTDOOR SITES

Results of the analysis of the variable "availability of outdoor sites" indicated that no significant relationship

exists between this factor and teacher use of OIA. A survey of the findings illustrates that virtually all the teachers in the survey sample, recognized potential sites where OIA could be conducted around their schools.

(See APPENDIX G, TABLE 110)

Mirka (1972) reported that inactive teachers rated the factor "inability to recognize the school site as a teaching area" as being the single most important reason for not using OIA. In the same study, the active teachers ranked the factor "recognizing the school site as a teaching area" as being the second most important factor influencing them to use OIA. One of the more common reasons stated for not offering OIA in an urban environment is that suitable sites were not available to conduct outdoor studies. Results of this study point out that this does not exist as a problem within the survey sample.

The active teachers were significantly more encouraged by having available sites for OIA than were the inactive teachers. This relationship was significant at the .10 level of confidence.

(See APPENDIX G, TABLE 111)

Only three members of the survey sample indicated that they did not have available outdoor sites for OIA and were discouraged by this fact.

(See APPENDIX G, TABLE 112)

IV. Information Sources

These variables provide the stimuli in the adoption process and are composed of two major types. The first type of information variable categorizes the source as cosmopolitan

(external) or local (internal). The second type categorizes the source of information as being either personal (person to person) or impersonal (includes mass media and printed or published material).

TABLE 3

SUMMARY OF THE SIGNIFICANT DIFFERENCES BETWEEN THE RESPONSES OF THE "ACTIVE" AND "INACTIVE" TEACHERS TO A NUMBER OF SELECTED VARIABLES RELATING TO THE INFLUENCE OF INFORMATION SOURCES ON THEIR USE OF OIA.

VARIABLE		Tau_c	LEVEL OF SIGNIFICANCE
29.	OTHER TEACHERS IN YOUR SCHOOL	0.153	N.S.
30.	PRINCIPAL	0.390	0.01
31.	SUPERVISORY STAFF	0.332	0.01
32.	SCHOOL COMMUNITY	-0.008	N.S.
33.	SCHOOL BOARD MEMBERS	0.088	N.S.
34.	LOCAL NEWSPAPER	0.181	0.10
35.	NATIONAL MEDIA	-0.004	N.S.
36.	DEPARTMENT OF EDUCATION	0.137	N.S.
37.	ALBERTA TEACHERS ASS'N.	0.070	N.S.
38.	EDUCATIONAL MAGAZINES	-0.043	N.S.

N.S. = not significant

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29. USE OF OIA BY OTHER TEACHERS IN YOUR SCHOOL

Survey results pointed out that the "use of OIA by other teachers in your school" had essentially "no effect" on

the use of OIA by the survey sample. There was no significant difference between the two groups with respect to this variable.

(See APPENDIX G, TABLE 113)

Findings on this subject by Risdon (1974) indicated that about 40% of his sample were first introduced to OIA through informal contact with a colleague. Hug (1964) found that the use of OIA by other teachers in the school had no effect on the use of OIA by his survey sample.

30. EFFECT OF THE PRINCIPAL ON USE OF OIA

The principals of those teachers who composed the active group, had a significantly stronger encouraging effect on their use of OIA than did the principals of those in the inactive group. This factor was found to be significant at the .01 level of confidence. One half of the inactive group felt that their principal had no effect on their use of OIA.

(See APPENDIX G, TABLE 114)

Findings on this factor are highly related to a findings reported earlier linking the attitude of the school administration to OIA and teacher use of OIA.

31. SUPERVISORY STAFF

Findings show that the supervisory staff of the active group were felt to have encouraged their use of OIA to a greater extent than did the supervisory staff of the inactive group. This factor was significant at the .01 level of confidence. The inactive group largely felt that this factor had no effect on their use of OIA.

(See APPENDIX G, TABLE 115)

32. INFLUENCE OF THE SCHOOL COMMUNITY ON THE USE OF OIA

While there was no significant relationship shown between the influence of the school community and teacher use of OIA it is important to observe that over 50% of the survey sample felt that the school community encouraged their use of OIA to some extent.

(See APPENDIX G, TABLE 116)

33. SCHOOL BOARD MEMBERS INFLUENCE ON USE OF OIA

School board members were felt to have had no significant influence on the use of OIA by the survey sample. In fact 67.4% of the total number of teachers felt the school board members had "no effect" on their decision whether or not to utilize OIA.

(See APPENDIX G, TABLE 117)

34. LOCAL NEWSPAPER'S INFLUENCE ON USE OF OIA

The active group felt that the local newspaper encouraged their use of OIA to a significantly greater extent than did the inactive group. This factor was rated significantly different at the .10 level of confidence. The greatest part (75%) of the sample felt that the local newspaper had no effect on their use of OIA.

(See APPENDIX G, TABLE 118)

35. NATIONAL MEDIA'S INFLUENCE ON USE OF OIA

This factor was found to be not a significant discriminator of the two groups. As the results indicate, three quarters of the survey sample felt that national medias coverage of outdoor education had no effect on their decision whether or not to use OIA.

(See APPENDIX G, TABLE 119)

36. DEPARTMENT OF EDUCATION

Survey findings indicated that no significant differences existed between the two survey groups and the degree to which they felt the provincial department of education had influenced their use of OIA. Of the total survey sample, 77.9% felt that the department of education had no effect on their use of OIA.

(See APPENDIX G, TABLE 120)

37. ALBERTA TEACHERS ASSOCIATION

Survey results established that there was no significant difference between the active and inactive groups with respect to what influence they felt the Alberta Teachers Association had on their use of OIA. Sixty two point eight percent of the survey sample indicated that this factor had "no effect" while 37.2% felt that the A.T.A. had encouraged their use of OIA to some extent.

(See APPENDIX G, TABLE 121)

This finding is difficult to understand in light of the fact that the survey population was composed of members of the A.T.A.'s specialist council on environmental and outdoor education.

38. EDUCATIONAL MAGAZINES

This factor proved not to be rated significantly different by either group with respect to their use of OIA. While not significant, it is important that 61.6% of the sample believed that educational magazines had encouraged their use of OIA.

(See APPENDIX G, TABLE 122)

V. Characteristics of the Innovation

This category includes the relative advantage, compatibility, complexity, divisibility and communicability of the innovation.

TABLE 4

SUMMARY OF THE SIGNIFICANT DIFFERENCES BETWEEN THE RESPONSES OF THE "ACTIVE" AND "INACTIVE" TEACHERS TO A NUMBER OF SELECTED VARIABLES RELATED TO CHARACTERISTICS OF OUTDOOR INSTRUCTIONAL ACTIVITIES.

VARIABLE	CATEGORY	Tau_c	LEVEL OF SIGNIFICANCE
39. EDUCATIONAL VALUE OF OIA		0.120	N.S.
40. TIME REQUIRED FOR LESSON PREPARATION		0.161	N.S.
41. EFFECT ON STUDENT INTEREST		0.292	0.01
42. RESULTS OF PREVIOUS EXPERIENCES		0.250	0.05
43. EFFECT ON CLASSROOM ROUTINE		0.215	0.10
44. DEMAND FOR ENVIRONMENTAL EDUCATION		0.074	N.S.
45. TIMETABLING		0.129	N.S.
46. USE OF SUBSTITUTE TEACHERS		0.180	N.S.
47. WEATHER		0.218	0.05
48. STUDENT ATTITUDE		0.245	0.05
49. RELATIONSHIP BETWEEN OIA AND PERSONAL PHILOSOPHY		0.133	N.S.
50. RELATIONSHIP BETWEEN OIA AND CLASSWORK		0.081	N.S.
	GOOD	0.119	N.S.
	FAIR	-0.066	N.S.
	POOR	--	I.R.

N.S. = not significant I.R. = insufficient results

VARIABLE	CATEGORY	Tau_c	LEVEL OF SIGNIFICANCE
51. KNOWLEDGE OF OIA		0.361	0.005
	GOOD	0.073	N.S.
	FAIR	0.274	N.S.
	POOR	-0.231	N.S.
52. UNDERSTANDING OF THE NATURAL ENVIRONMENT		0.187	0.10
	GOOD	0.138	N.S.
	FAIR	0.333	0.10
	POOR	--	I.R.
53. ABILITY TO PREPARE CLASS FOR OIA		0.197	0.10
	GOOD	0.048	N.S.
	FAIR	0.264	N.S.
	POOR	0.334	I.R.
54. ABILITY TO KEEP THE INTEREST AND ATTENTION OF THE STUDENTS		0.167	N.S.
	GOOD	0.089	N.S.
	FAIR	0.071	N.S.
	POOR	- -	I.R.
55. ABILITY TO MAINTAIN PUPIL SAFETY		0.137	N.S.
	GOOD	0.019	N.S.
	FAIR	-0.166	N.S.
	POOR	- -	I.R.
56. ABILITY TO VARY APPROACH		0.269	0.05
	GOOD	0.044	N.S.
	FAIR	-0.107	N.S.
	POOR	-0.500	I.R.
57. ABILITY TO USE EVALUATIVE TECHNIQUES		0.152	N.S.
	GOOD	0.056	N.S.
	FAIR	0.232	N.S.
	POOR	-0.444	I.R.

N.S. = not significant I.R. = insufficient results

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39. <u>EDUCATIONAL VALUE OF OIA</u>

Ninety five point three percent of the survey sample

indicated that they were at least encouraged to use OIA when the educational value of OIA was considered. In comparing the results of the two groups, with respect to how the educational value of OIA influences their use of OIA, no significance in differences was found.

(See APPENDIX G, TABLE 123)

Surveys by Hug (1964), Mirka (1972) and Cowan (1972) have all shown that the active group were significantly more encouraged to use OIA with respect to its education value than the inactive group who could recognize the value of such practices but were not as encouraged. As the survey sample was drawn from the Environmental and Outdoor Educational Council, it would be expected that they had recognized the educational value of OIA.

40. TIME REQUIRED FOR LESSON PREPARATION

The survey results indicated that the factor "time required for lesson preparation" was not significant in discriminating the active from the inactive groups, with respect to their use of OIA. While 43.0% of the sample indicated that this factor had no effect on their use of OIA, it should be noted that about 40% of the sample were at least discouraged from using OIA because of the "time required for lesson preparation".

(See APPENDIX G, TABLE 124)

These results contradict the findings of Hug (1964), Hambleton (1971), Cowan (1972), and Risdon (1974) who found that teachers felt too much time was required for lesson preparation, and indicated that this factor was one of the most

significant factors discouraging the use of OIA.

41. EFFECT ON STUDENT INTEREST

The active teachers felt that they were significantly more encouraged to use OIA than were the inactive groups based on the effect of OIA on student interest. This was true at the .01 level of confidence. Both groups acknowledged that this factor at least encouraged their use of OIA.

(See APPENDIX G, TABLE 125)

42. RESULTS OF PREVIOUS EXPERIENCES WITH OIA

The survey results indicate that there was a significant difference in the responses of the active and inactive teachers to the factor "results of previous experiences with OIA" and their use of OIA. Specifically, the active group was more encouraged to use OIA than were the inactive group as a result of their previous experiences with OIA. This relationship was significant at the .05 level of confidence.

(See APPENDIX G, TABLE 126)

These findings concur with Hug (1964) who found that the active group were strongly encouraged to use OIA based on the results of previous experiences with OIA.

43. EFFECT ON CLASSROOM ROUTINE

This factor was found to be significant in discriminating the active and the inactive groups with respect to their use of OIA. Specifically, the active group were more encouraged to use OIA than were the inactive group because of the effect of OIA on classroom routine. This relationship was significant at the .10 level of confidence.

(See APPENDIX G, TABLE 127)

44. DEMAND FOR ENVIRONMENTAL AWARENESS

The results generally indicated that no significant difference was observed between the two groups in responding to how the variable "demand for environmental awareness" influences their use of OIA. What was evident however, was that 89.5% of the survey sample were at least encouraged to use OIA because of the demand for environmental awareness.

(See APPENDIX G, TABLE 128)

45. TIMETABLING

The factor "timetabling" was not rated significantly different by the two groups in terms of how it influenced their use of OIA. One half of the survey sample indicated that they were at least discouraged from using OIA because of the problems involved with timetabling students and teachers around outdoor instructional activities.

(See APPENDIX G, TABLE 129)

Hambleton (1971), Cowan (1972) and Risdon (1974) have identified timetabling problems involved with the use of OIA as being a major factor limiting the growth of such an approach to instruction.

46. USE OF SUBSTITUTE TEACHERS

No significant difference was found to exist between the two groups when they responded to the factor "effect of using substitute teachers" on their decision whether or not to use OIA. While about half of the sample felt this factor had no effect on their use of OIA, 43.1% of the sample indicated that the use of substitute teachers at least discouraged their use of OIA.

(See APPENDIX G, TABLE 130)

Findings by Cowan (1972) indicate that the unwillingness of the administration to provide substitute teachers was rated as an important factor in influencing the teacher not to use OIA.

47. WEATHER

The variable "weather" was interpreted significantly different by the two groups when considering the influence of this factor on their use of OIA. Specifically the active group were more encouraged to use OIA as a result of the influence of the weather. This relationship was significant at the .05 level of confidence.

(See APPENDIX G, TABLE 131)

Research by Cowan (1972) indicated that the predictability of the weather and the harsh Alberta winters discouraged teacher use of OIA.

48. STUDENTS ATTITUDE TOWARDS OIA

Both the active and inactive teachers were encouraged to use OIA because of the students attitude towards the use of such an approach to instruction. A closer analysis indicated that the active group were significantly more encouraged to use OIA as a result of the students attitude. This relationship was significant at the .05 level of confidence.

(See APPENDIX G, TABLE 132)

Research by Risdon (1974) established that student's acceptance of OIA as an innovative method of instruction as one of the three factors most facilitating the growth of outdoor instructional activities.

49. RELATIONSHIP BETWEEN PERSONAL PHILOSOPHY AND OIA

Both groups indicated that the relationship between their personal philosophies and OIA had at least encouraged their use of OIA. (Active 98.1%, Inactive 93.5%). No significant difference was found in how the active and inactive groups rated this factor as to how it influenced their use of OIA.

(See APPENDIX G, TABLE 133)

Hug (1964) also found that both the active and inactive teachers were encouraged by the fact their personal philosophy was congruent to OIA however when he compared the two groups, he found that the active group were significantly more encouraged by this factor.

50. RELATIONSHIP BETWEEN OIA AND CLASSWORK

The "relationship between OIA and classwork" was not rated significantly different by the two groups of teachers with respect to how this factor influenced their use of OIA. Sixty seven point three percent of the active group and 58.1% of the inactive group felt that they had a good understanding of the relationship between OIA and classwork.

(See APPENDIX G, TABLE 134)

Mirka (1972) identified the inability of teachers to apply classroom materials to the out of doors environment as a factor limiting teacher use of OIA.

No significant differences were observed between the active and inactive teachers and how they interpreted having a "good", "fair", or "poor" understanding of the relationship between OIA and classwork. It was noted that 90.9% of the teachers who rated this factor as "good" were at least encouraged to use

OIA because of it.

(See APPENDIX G, TABLES 135,136,137)

51. KNOWLEDGE OF OIA THAT CAN BE UTILIZED

When the responses of both groups to the variable "knowledge of OIA that can be utilized" were compared, the active group indicated a significantly greater knowledge of OIA. This relationship was significant at the .005 level of confidence.

(See APPENDIX G, TABLE 138)

These findings verify similar findings in research by Hug (1964), Mirka (1972) and Cowan (1972), that the teachers actively involved in outdoor instructional activities have a greater knowledge of outdoor instructional activities than teachers not actively utilizing this approach to instruction. It is interesting to note that while 70% of the sample group had indicated that their college education did not prepare them to use OIA, yet almost 1/2 of the sample rate their knowledge of OIA that can be utilized as being "good".

There were no significant differences between the way either of the groups interpreted having a "good", "fair", or "poor" knowledge of OIA and its influence, on their use of OIA. Ninety five percent of those teachers indicating a good knowledge of OIA felt encouraged to use OIA as a result of this factor.

(See APPENDIX G, TABLES 139,140,141)

52. UNDERSTANDING THE NATURAL ENVIRONMENT

The results show that the active group had a significantly better understanding of the natural environment when compared to the inactive group. This relationship was significant

at the .10 level of confidence.

(See APPENDIX G, TABLE 144)

Ninety seven point nine percent of the teachers who had a "good" understanding of the natural environment were, at least encouraged to use OIA as a result of this. Among those teachers who rated their degree of understanding as "good", or "poor", there was no significant difference observed between the groups.

(See APPENDIX G, TABLES 143,145)

53. ABILITY TO PREPARE CLASS FOR OIA

The survey results indicate that the active group are significantly better able to prepare their class for OIA when compared to the inactive group. This relationship is significant at the .10 level of confidence.

(See APPENDIX G, TABLE 146)

The ability of a teacher to prepare a class for OIA was not interpreted significantly different by the two groups of teachers, with respect to the influence of this factor on their use of OIA. Of those teachers indicating a "good" ability to prepare the class for OIA, 96.6% felt encouraged to use OIA as a result of this factor.

(See APPENDIX G, TABLES 147,148,149)

54. ABILITY TO KEEP THE INTEREST AND ATTENTION OF THE CLASS

Both groups of teachers indicated that they largely possessed a "good" ability to maintain the interest and attention of the class as "good", "fair", or "poor" with respect to how this factor influenced their use of OIA. Ninety six point four percent of the teachers who rated their ability to keep the

interest and attention of the class as "good" were at least encouraged to use OIA by this fact.

(See APPENDIX G, TABLES 151,152,153)

55. ABILITY TO MAINTAIN PUPIL SAFETY

The survey results indicate that no significant relationship exists between the teachers ability to maintain pupil safety and their use of outdoor instructional activities. It was observed however that 69.8% of the sample indicated a "good" ability to maintain pupil safety.

(See APPENDIX G, TABLE 154)

No significant differences were observed between the active and inactive groups, who rated their ability to maintain pupil safety "good", "fair", and "poor" with respect to how this factor influenced their use of OIA. Ninety percent of the teachers who indicated a good ability to maintain pupil safety while on OIA felt encouraged to use OIA as a result of this ability.

(See APPENDIX G, TABLES 155,156,157)

56. ABILITY TO VARY APPROACH TO SUIT THE TEACHING SITUATION

A significant relationship was indicated to exist between the teacher's ability to vary the approach to suit the teaching siutation and their use of OIA. Specifically, the active group was better able to vary their approach when compared to the inactive group. This relationship was significant at the .05 level of confidence.

(See APPENDIX G, TABLE 158)

Of teachers who indicated their ability to vary their approach in use of OIA as being "good", "fair", or "poor", there

was no significant differences observed between the active and inactive groups with respect to how they interpreted their ability as influencing their use of OIA. Ninety two point six percent of those teachers who rated their ability to vary their approach as "good" indicated that this factor encouraged their use of OIA.

(See APPENDIX G, TABLES 159,160,161)

57. ABILITY TO USE EVALUATIVE TECHNIQUES

No significant relationship was found to exist between the factor "ability to use evaluative techniques" and teacher use of OIA. Fifty seven percent of the sample indicated that they had a "fair" ability to use evaluative techniques.

(See APPENDIX G, TABLE 162)

No significant difference was observed between the active and inactive groups with respect to their abilities to use evaluative techniques and its influence of their use of OIA. This was true for all categories of this variable. Ninety two point nine percent of those who rated their ability level on this factor as "good" felt that it had encouraged their use of OIA.

(See APPENDIX G, TABLES 163,164,165)

CHAPTER V

SUMMARY AND CONCLUSIONS

1. Summary

The central purpose of this study was to identify, evaluate and analyze those major influencing factors which serve to encourage or discourage the adoption of outdoor education as an instructional innovation by the classroom teacher in Alberta. Specifically the investigation involved the initial identification of the philosophical roots of outdoor education, conceptualizing its introduction as an educational innovation and monitoring its development within the Alberta school system. The second phase involved the compiling of an inventory of possible influencing factors and the modification of an existing survey instrument to suit the nature of the particular study. The last phase involved the administration of the questionnaire to randomly selected members of the Environmental and Outdoor Education Council of the A.T.A., who met the criteria for inclusion in the survey. The survey instrument utilized was developed around the conceptual framework Rogers (1962) identified in his theory of innovation diffusion. The instrument elicited responses to questions concerning the respondents personal background, teaching environment, information sources and characteristics of the innovation. The survey results were analyzed by comparing the responses of the teachers who used outdoor instructional activities (the active group) with the responses of the teachers who indicated they did not use outdoor instructional activities (the inactive group). A variable was identified

as an influencing factor when there was a statistically significant difference between the responses of the active teachers and the inactive teachers to that variable. Where multiple choice questions were asked the respondent was also asked to indicate how that factor influenced their use of OIA. A secondary analysis involved comparing those members of the active and inactive group who responded in a similar manner to each multiple choice question. This comparison was based on how these teachers interpreted the same factor as influencing their use of OIA. Significant differences, between how each group interpreted the same variable with respect to how it influenced their use of OIA, were identified.

11. Findings of the Study

The major findings of the investigation are as follows:

1. Teachers who use outdoor instructional activities are on the average younger than teachers who do not use such activities.

2. Teachers who use outdoor instructional activities have had more experience in working with youth groups in the outdoors than the teachers in the inactive group.

3. The active teachers have a greater familiarity with the outdoors than do the inactive teachers.

4. The active teachers more often have an administration which feels that outdoor instructional activities are inherent to a sound educational program than do the inactive teachers.

5. The administration of the schools in which the active teachers instructed granted them permission to use OIA

(where no transportation was involved) easier than the administration of the schools of the inactive teachers.

6. The schools in which the active teachers worked had more money available for transportation to outdoor instructional sites than the inactive teachers.

7. There was a greater availability of reference material in the schools of the active teachers than the inactive teachers.

8. The principals played a significant role in influencing the active teachers use of OIA.

9. The active teachers supervisory staff encouraged them to use OIA to a greater extent than did the supervisory staff of the inactive teachers.

10. The local newspapers played a greater role in encouraging the active teachers to use OIA than did that of the inactive teachers.

11. Teachers who use OIA felt it has a more positive effect on student interest than do the teachers who do not use OIA.

12. The teachers who use OIA have generally had positive results from their previous experiences with this approach to instruction.

13. Teachers who use OIA have found it has a positive effect on the classroom routine.

14. The teachers who did not use outdoor instructional activities were more discouraged by the effect of the weather on such a program than were the teachers who used OIA.

15. Teachers who use OIA are more encouraged to use OIA because of the students attitude to this approach to instruction than were the teachers who did not use OIA.

16. Active teachers had a greater knowledge of OIA than did the inactive teachers.

17. Active teachers had a greater understanding of the natural environment than did the inactive teachers.

18. Active teachers were better able to prepare their classes for OIA and vary their approach to instruction than were the inactive teachers.

19. The inactive teachers were more discouraged from using OIA as a result of never having taught in a school with an OIA program than were the active teachers.

20. Being very knowledgeable about the outdoors, encouraged the active teacher to use OIA, to a greater extent than it did the inactive teachers.

21. The inactive teachers were more discouraged from using OIA as a result of having 26-35 students in their class, than were the active teachers.

22. Active teachers were more encouraged to use OIA when instructing the grade 4-6 level than were the inactive teachers.

23. Where the school administration considered OIA as inherent to a sound educational program, the active teachers were more encouraged to use OIA than the inactive teachers.

24. When curriculum guides were not readily available, the inactive teachers were more discouraged from using OIA than were the active teachers.

25. Active teachers were more encouraged to use OIA than were inactive teachers when the procedure for

obtaining permission to use OIA when no transportation was required, was rated as "average".

26. Where the procedure for obtaining transportation to outdoor sites was rated as "average", the active teachers were more encouraged to use OIA than were the inactive teachers.

27. Active teachers were more encouraged to use OIA than were inactive teachers where both groups felt legal liability was not an important factor in their use of OIA.

28. The availability of outdoor sites, encouraged the active groups to a greater extent than the inactive group.

29. When both groups felt they had a "fair" understanding of the natural environment the active teachers were more encouraged to use OIA than were the inactive teachers.

III. Introduction to Conclusions and Implications

For any instructional innovation to be successfully diffused as a teaching practice within the educational system, there must have transpired a certain series of functions responsible for transforming the instructional theory into practice. Sound, empirical research forms the basis of educational theory. Testing and retesting in trial situations substantiates the value of the innovation as a teaching practice. An evaluation of the feasibility of adopting the instructional practice is made by the Department of Education prior to its official recognition as a sanctioned practice. Once this recognition is achieved and a decision made by the Department of Education to promote the innovation, efforts are directed towards communicating

the innovation to the practicing teacher. These would initially take the form of published curricular guides and reference materials. Later, inservice programs and teacher-training programs at universities would be directed at preparing the teacher in the use of the instructional innovation. At a more regional level, school system administrators would direct their efforts towards promoting the innovation by scheduling inservice programs and by providing an environment which was condusive to the teacher's adoption of the innovation. Once provided with the proper instruction, and a favorable teaching environment, the teacher would remain the final cog in the diffusion of the innovation from instruction theory to practice.

The diffusion of outdoor instructional activities, as an educational innovation within Alberta, developed in a significantly different manner from the theoretical model previously outlined. While outdoor instructional activities had a well established philosophical base and had been the subject of numerous studies acclaiming the educational value of this teaching practice, the use of OIA was not officially sanctioned by the Alberta Department of Education for a number of years. During this period a "grass roots" development of the use of OIA began, the results of the efforts of keenly interested teachers who were enterprizing enough to pioneer the use of the outdoors for instructional purposes. The successful use of the outdoors by these forward thinking teachers was highly visible proof of the value of outdoor instructional activities and this instructional approach soon received the official sanction of the Department of Education. Curricular materials

were published and inservice programs were introduced to familiarize teachers with the use of outdoor education. To date, however this practice has not been adopted to any great degree as a standard instructional approach by classroom teachers. This study has attempted to identify and analyze those major factors serving to limit the diffusion of this innovation by discouraging teacher use of OIA and also factors which encourage teacher use of OIA.

IV. Conclusions

Based on the findings of the survey some general conclusions can be made:

1. At present, Alberta teachers are generally not adequately prepared to make use of the out of doors for instructional purposes. More specifically, teacher training courses at universities and colleges are not equipping the prospective teachers with the physical skills necessary to be at ease in an outdoor environment nor with the knowledge of how to efficiently and effectively utilize this resource to complement classroom instruction. Professional preparation in the use of outdoor instructional activities appears to be limited to in-service training programs and workshops.

2. Personal interest in the outdoors and the experience gained through working with children in this environment has developed within the outdoor educator a familiarity with the out of doors and a knowledge of how to utilize this resource for educational purposes which could not be gained through existing formal teacher preparation.

3. The survey has indicated that administrators played a crucial role in determining the extent of the use of

outdoor instructional activities by classroom teachers. Where the administrations of the school system and the school consider the use of the outdoors for instructional purposes as inherent to a sound educational program and where the supervisory staff and principal actively encourage such practices by providing reference materials and money for transportation, Alberta teachers are likely to adopt the use of outdoor instructional activities.

4. The innovative use of outdoor instruction to complement that in the classroom stimulates student interest in the material being covered and provides a positive change from classroom routine.

V. Implications

Given that the provincial department of education has recognized the educational value of outdoor instructional activities, colleges and universities have a responsibility to provide adequate teacher preparation in the use of this form of instruction. This preparation should include both instruction in outdoor skills and in teaching methodology so that the graduating teachers can safely instruct in this new environment and so the teacher knows how to best utilize this resource to complement classroom instruction.

In reflecting the views of the provincial department of education, local administrations at the school division level and at the school level should acknowledge the use of outdoor instructional activities as inherent to a sound educational program by providing an environment which is condusive to teacher use of this instructional method. This would involve providing clinics and workshops for teacher training, resource

materials for reference, consultants to guide and assist teachers in the use of outdoor education, money for transportation to outdoor sites and possibly some extra preparation time or compensation for the extra effort and time required to plan and implement outdoor instructional activities.

The survey indicated that generally teachers recognized the educational potential of outdoor instructional activities and the public demand for environmental awareness had encouraged them to utilize such an approach to instruction. With proper teacher preparation and the active support of all levels of administration, the innovative use of the outdoors for instructional purposes can be successfully adopted by Alberta teachers and significantly contribute towards the total educational development of the student.

VI. Recommendations for Further Research

1. There is a need for a survey of teacher training institutions within the province to determine what form of training is offered to prepare prospective instructors with the skills and knowledge necessary to effectively instruct in an outdoors environment.

2. There is a need to survey the administrations of schools and school systems to determine their attitudes towards outdoor instructional activities and how these attitudes are reflected in their administration of policies.

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APPENDIX A

AMENDMENTS TO THE SCHOOL ACT 1970

In 1970, the Alberta Department of Education revised the School Act. The new Act included the following clauses:

Part 6 Property

91. (1) The board shall provide and maintain adequate real and personal property for its administrative and educational purposes.

(2) The board may:
- (a) acquire and hold real or personal property or any interest therein,
- (b) acquire land for school buildings, whether the land is in or outside the district or division and acquire additional land to add to land owned by it,
- (c) acquire land or any right in, on, over or under it (if necessary extending beyond the boundaries of school sites) for sewage, water, gas, electric power or other services,
- (d) enter into contracts granting or acquiring an option to purchase or sell real or personal property,
- (e) acquire,build, furnish outside residences and dormitories, and
- (f) acquire, build, furnish and rent offices for itself and its employees.

(1970:40)

An order-in-council on June 23, 1970 by the Minister of Education, E.C. Clark amended section 13 of the School Act:

Pursuant to section 13 of the School Act, 1970, I hereby delegate my power under section 12 (2) (ii) to school boards to the extent that they may

(1) prescribe textbooks in addition to or other than those prescribed by myself, such prescription to be by resolution of the board with a copy to be forwarded to the Department of Education, and

(2) with respect to instructional materials other than textbooks, prescribe any such materials provided that a teacher who uses materials other than those prescribed by myself or the board is responsible to the board for the use of

those materials.

(1970:1087)

The boards were also given the power, under section 138 (c) of the School Act, to:

> ....arrange for, undertake or sponsor for its pupils, and at its own cost or otherwise, educational, cultural or recreational trips inside or outside its district or division.
>
> (1970:54)

APPENDIX B

SURVEY INSTRUMENT

OUTDOOR INSTRUCTIONAL ACTIVITIES SURVEY

You are being asked to participate in a survey of the Environmental and Outdoor Education Council of the Alberta Teachers Association. The following questionnaire is designed as a fact-finding survey only. You will not be asked to identify yourself and all information will be strictly confidential.

The purpose of this questionnaire is two-fold:

1. To establish some background information on you - the instructor, and to identify some characteristics of your teaching environment.

2. To seek your opinion of selected factors which may have influenced your inclusion or exclusion of outdoor instructional activities as a part of your teaching practice.

Definition:

Outdoor Instructional Activities, for the purpose of this survey will be defined as: those guided, direct, real-life experiences that are:

1. Conducted by the classroom teacher in a primarily natural environment such as parks, gardens, preserves, forests, school grounds and other open spaces; and,

2. Utilize the natural environment as the major teaching resource.

The use of the outdoors as a medium for instruction is not limited to any one discipline but rather cuts across all curricular areas to teach that which can be most effectively learned in that environment.

THANK YOU FOR YOUR COOPERATION

DIRECTIONS

Please answer all questions.

Read each question carefully before responding.

These are basically three types of questions:

Type 1: Multiple choice - please indicate your response by marking a check (✓) beside one of the choices.

Type 2: This question will ask you to rate a given influencing factor as to whether it encourages or discourages your use of outdoor instructional activities. This rating will be on a five-point scale where:

SE = strong encouragement
E = encouragement
NE = no effect
D = discouragement
SD = strong discouragement

Check (✓) your response:

EXAMPLE:	( ) SE	( ) E	( ) NE	( ) D	( ) SD
Extra time needed for lesson preparation.					

Type 3: This type of question will require your response to a multiple choice question and then a rating on the encouragement/discouragement scale based on your initial response.

EXAMPLE:

Present size of average class:

		( ) SE	( ) E	( ) NE	( ) D	( ) SD
Less than 26	___					
26-35	___					
More than 35	___					

HAVE YOU PARTICIPATED IN OUTDOOR INSTRUCTIONAL ACTIVITIES WITH YOUR STUDENTS AS PART OF THE FORMAL CURRICULAR SCHOOL PROGRAM DURING THE CURRENT TERM? (SINCE SEPTEMBER 1976) Yes___ No___

3

1. Does your administration feel that outdoor instructional activities are:

   a) inherent to ___,
   b) supplemental to ___ sound educational programs.

   ( ) SE ( ) E ( ) NE ( ) D ( ) SD

2. Describe your curricular organization:

   self-contained classroom ___
   self-contained classroom except for some subjects ___
   rotating classes ___

   ( ) SE ( ) E ( ) NE ( ) D ( ) SD

3. Are curricular guides or curricular planning materials available for your use?

   Yes___
   No ___

   ( ) SE ( ) E ( ) NE ( ) D ( ) SD

4. Do the objectives of these courses outlined within the curriculum guides reflect an opportunity to utilize outdoor instructional activities?

   Yes ___
   No ___

   ( ) SE ( ) E ( ) NE ( ) D ( ) SD

5. Describe the procedure for obtaining permission for outdoor instructional activities where no transportation is required.

   Difficult ___
   Average ___
   Simple ___

   ( ) SE ( ) E ( ) NE ( ) D ( ) SD

6. Describe the procedure for obtaining permission for outdoor instructional activities where transportation is required.

   Difficult ___
   Average ___
   Simple ___

   ( ) SE ( ) E ( ) NE ( ) D ( ) SD

7. Describe policies related to distance limitation for outdoor instructional activities.

   Very restrictive ___
   Some restrictions ___
   Little restrictions ___

   ( ) SE ( ) E ( ) NE ( ) D ( ) SD

8. Do you perceive legal liability as being an important factor in your decision whether or not to make use of outdoor instructional activities?

   Yes___
   No ___

   ( ) SE ( ) E ( ) NE ( ) D ( ) SD

9. Describe the money available for class transportation to sites suitable for outdoor instructional activities.

Plentiful ___
Adequate ___
Inadequate ___
Not Sure ___

( ) ( ) ( ) ( ) ( )
SE E NE D SD

10. Indicate size of your average class:

Less than 26 ___
26-35 ___
More than 35 ___

( ) ( ) ( ) ( ) ( )
SE E NE D SD

11. Indicate grade level which you instruct:

1-3 ___
4-6 ___
7-9 ___
10-12___

( ) ( ) ( ) ( ) ( )
SE E NE D SD

12. Indicate the availability of reference material (in your school) for outdoor instructional activities:

Excellent___
Average ___
Poor ___

( ) ( ) ( ) ( ) ( )
SE E NE D SD

13. Describe the availability of outside resource people to assist you during outdoor instructional activities:

Plentiful ___
Adequate ___
Inadequate___
Not Sure ___

( ) ( ) ( ) ( ) ( )
SE E NE D SD

14. Describe your major teaching area:

Phys Ed ___
Science ___
Language Arts ___
Social Studies___
Mathematics ___
Other _____
(please indicate)

( ) ( ) ( ) ( ) ( )
SE E NE D SD

15. Are there suitable accessible areas within your school yard or community that could be utilized for outdoor instructional activities?

Yes___
No ___
Not Sure ___

( ) ( ) ( ) ( ) ( )
SE E NE D SD

Indicate what effect (if any) the following personnel had on influencing your decision concerning the use of outdoor instructional activities:

16. Other teachers in your school	( ) SE	( ) E	( ) NE	( ) D	( ) SD
17. Your principal or vice-principal	( ) SE	( ) E	( ) NE	( ) D	( ) SD
18. Supervisory staff (i.e., superintendent, supervisor or curricular associate)	( ) SE	( ) E	( ) NE	( ) D	( ) SD
19. The school community (parents)	( ) SE	( ) E	( ) NE	( ) D	( ) SD
20. School board members	( ) SE	( ) E	( ) NE	( ) D	( ) SD
21. Local newspapers and their coverage of educational matters	( ) SE	( ) E	( ) NE	( ) D	( ) SD
22. National/regional radio, television and magazine coverage	( ) SE	( ) E	( ) NE	( ) D	( ) SD

Indicate what affect, if any, the following professional organizations had on influencing your decision concerning the use of outdoor instructional activities:

23. The provincial department of Education	( ) SE	( ) E	( ) NE	( ) D	( ) SD
24. The Alberta Teacher's Association (ATA)	( ) SE	( ) E	( ) NE	( ) D	( ) SD
25. Other educational magazines and newsletters	( ) SE	( ) E	( ) NE	( ) D	( ) SD

Assess how the following factors affect your use of outdoor instructional activities:

26. The educational value of outdoor instructional activities:	( ) SE	( ) E	( ) NE	( ) D	( ) SD
27. The time needed for lesson preparation	( ) SE	( ) E	( ) NE	( ) D	( ) SD
28. The affect of outdoor instructional activities on student interest in subject matter	( ) SE	( ) E	( ) NE	( ) D	( ) SD

29.	The results of previous experiences with outdoor instructional activities	( ) SE	( ) E	( ) NE	( ) D	( ) SD
30.	The affect of outdoor instructional activities on the regular classroom routine	( ) SE	( ) E	( ) NE	( ) D	( ) SD
31.	Increasing demand for environmental awareness	( ) SE	( ) E	( ) NE	( ) D	( ) SD
32.	Conflicts in timetabling	( ) SE	( ) E	( ) NE	( ) D	( ) SD
33.	Use of substitute teachers where necessary	( ) SE	( ) E	( ) NE	( ) D	( ) SD
34.	Unpredictability of the weather	( ) SE	( ) E	( ) NE	( ) D	( ) SD
35.	The attitude of the students to outdoor instructional activities	( ) SE	( ) E	( ) NE	( ) D	( ) SD
36.	Assess your understanding of the relationship between classwork and outdoor instructional activities: Good ___ Fair ___ Poor ___	( ) SE	( ) E	( ) NE	( ) D	( ) SD
37.	How does the relationship between outdoor instructional activities and your personal philosophy of education affect your attitude towards this approach?	( ) SE	( ) E	( ) NE	( ) D	( ) SD
38.	Assess your understanding of outdoor instructional activities that can be carried out in each curricular area: Good ___ Fair ___ Poor ___	( ) SE	( ) E	( ) NE	( ) D	( ) SD
39.	Assess you understanding of the natural environment: Good ___ Fair ___ Poor ___	( ) SE	( ) E	( ) NE	( ) D	( ) SD

Assess your ability to conduct the following phases of outdoor instructional activities:

40. Preparing the class for the outdoor activity:

Good ___
Fair ___
Poor ___

( ) ( ) ( ) ( ) ( )
SE E NE D SD

41. Keeping the interest and attention of the class:

Good ___
Fair ___
Poor ___

( ) ( ) ( ) ( ) ( )
SE E NE D SD

42. Allowing for pupil safety:

Good ___
Fair ___
Poor ___

( ) ( ) ( ) ( ) ( )
SE E NE D SD

43. Varying your approach to suit the teaching: situation:

Good ___
Fair ___
Poor ___

( ) ( ) ( ) ( ) ( )
SE E NE D SD

44. Using follow-up or evaluation techniques for field trips:

Good ___
Fair ___
Poor ___

( ) ( ) ( ) ( ) ( )
SE E NE D SD

Indicate the following information and how (if at all) it influenced your decision concerning the use of outdoor instructional activities:

45. Age: Under 25 years ___
26-30 ___
31-40 ___
over 40 ___

( ) ( ) ( ) ( ) ( )
SE E NE D SD

46. Health: Good ___
Fair ___
Poor ___

( ) ( ) ( ) ( ) ( )
SE E NE D SD

47. Marital status: Single ___
Married ___
Divorced ___
Widowed ___

( ) ( ) ( ) ( ) ( )
SE E NE D SD

48. Children living at home: 0 ___
1 ___
2 ___
3 ___
4 ___
5 ___
More than 5 ___

( ) ( ) ( ) ( ) ( )
SE E NE D SD

49. Indicate primary area of residence before you turned 18 years old:

Urban ___
Suburban ___
Rural ___

( ) ( ) ( ) ( ) ( )
SE E NE D SD

50. Number of years since you last attended university:

1-5 ___
6-10 ___
11-15 ___
Over 15 ___

51. Indicate degree(s) held _____ and specialization (if any): _____.

52. Do you feel your college education adequately prepared you to conduct outdoor instructional activities?

Yes ___
No ___

( ) ( ) ( ) ( ) ( )
SE E NE D SD

53. Have you ever worked with youth groups (i.e., as a camp counsellor, playground instructor, etc.) in an outdoor setting?

Much ___
Some ___
Little ___
Not at all ___

( ) ( ) ( ) ( ) ( )
SE E NE D SD

54. Have you received in-service or workshop training on the use of outdoor instructional activities?

Much ___
Some ___
Little ___
Not at all ___

( ) ( ) ( ) ( ) ( )
SE E NE D SD

55. Have you ever taught in a school which had an organized unit of outdoor instructional activities?

Yes___
No ___

( ) ( ) ( ) ( ) ( )
SE E NE D SD

56. Describe your personal level of interest in the outdoors:

High ___
Medium___
Low ___

( ) ( ) ( ) ( ) ( )
SE E NE D SD

57. Describe your degree of familiarity with the outdoors environment:

Very knowledgable ___
Some knowledge ___
Little knowledge ___

( ) ( ) ( ) ( ) ( )
SE E NE D SD

If you feel there were additional influencing factors serving either to encourage or to discourage your use of outdoor instructional activities, please identify these factors in the space provided and feel free to comment on any other aspect of the study.

APPENDIX C

INTRODUCTORY LETTER TO THE EXECUTIVE OF THE ENVIRONMENTAL AND OUTDOOR EDUCATION COUNCIL

January 13th, 1977,
EDMONTON, Alberta.

Executive of the A,T.A, Council on
Environmental and Outdoor Education:

Permit me to introduce myself as Gregg Meropoulis. As a graduate student in Outdoor Education at the University of Alberta, I am currently finalizing my thesis "Analysis of Factors Influencing Teacher Utilization of Outdoor Instructional Activities." I have recently been made aware of the efforts of your council to co-ordinate and promote environmental and outdoor education. Your large membership can attest to your success in increasing teacher participation in outdoor programs. I feel very strongly that the key factor limiting even further growth of this movement is the reluctance of teachers to become involved with outdoor instruction. My study is designed to identify those major influencing factors which discourage teacher use of the outdoors, and those factors which encourage teacher utilization of this resource. I am writing to determine whether you as an executive, would encourage the participation of your membership in a survey which would attempt to identify these influencing factors.

While John Hug has documented a similar study on American teachers, no such empirical research is available on their Canadian counterparts. The membership of your council have been closely involved with various forms of outdoor and environmental programs and are therefore most qualified to

comment on those factors which have served to encourage or discourage their use of outdoor instructional activities.

Documented results from this study can give the council direction in identifying those factors which are retarding greater teacher participation in outdoor studies. Based on these findings workshops, clinics, and seminars could be directed towards removing many of these negative influences and accenting many of the positive benefits of learning about the outdoors in the outdoors.

Early collection and analysis of results would allow for the completion of my study by mid-March. At that time I would be glad to submit a detailed summary of these findings to the council. I could also send you a copy of my thesis upon its completion.

Should you require further information about this study feel free to contact my advisor, Dr. Harvey Scott (432-5901) at the University of Alberta.

I await your response on this request.

Respectfully yours,

Gregg Meropoulis

APPENDIX D

INTRODUCTORY LETTER TO MAILED SURVEY SAMPLE

UNIVERSITY OF ALBERTA

March 23rd, 1977.

Member of the Environmental and
Outdoor Education Council:

The purpose of this survey is to gather data for a research project in connection with my master's studies at the University of Alberta. This study is being carried out under the supervision of Dr. H. Scott and in co-operation with the executive of your Environmental and Outdoor Education Council.

The enclosed questionnaire was administered to the delegates attending the most successful, first annual Environmental and Outdoor Education Conference recently held at Camp He Ho Ha but my survey requires a greater representation from council membership in order to draw concrete conclusions.

Most of the questions will require your initial response to a multiple choice question and based on this response, you will be asked to rate that factor as to whether it encourages or discourages your use of outdoor instructional activities. Please fill in both sections of questions of this nature.

This questionnaire should be completed by only active classroom teachers so if you do not fall in this category, please indicate so and return the questionnaire.

If you are an active classroom teacher, your completion and return of this questionnaire within two week of receiving

it would be sincerely appreciated. Find enclosed a stamped, self-addressed envelope.

It is my hope that the indirect benefits to be gained by your participation in this research will in time prove well worth while.

Thanking you in advance,

Gregg Meropoulis

APPENDIX E

FOLLOW UP LETTER TO MAILED QUESTIONNAIRE

UNIVERSITY OF ALBERTA

April 9th, 1977

Fellow Council Member:

Approximately two weeks ago I mailed you a letter soliciting your assistance in a research study by completing and returning an enclosed questionnaire. The study is designed to identify those major factors which influence teacher use of outdoor instructional activities.

I realize that the last few months of the term are particularly busy but I request that you set a few minutes aside to complete the questionnaire so that an inclusive survey may be obtained.

If you have already completed the questionnaire and returned it, please disregard this letter. If you do not fall within the category of classroom teacher as defined on the questionnaire, please return this form and indicate so.

Thank you for your assistance and co-operation in making this survey of the council possible.

Yours very truly,

Gregg Meropoulis

APPENDIX F

TEACHERS COMMENTS CONCERNING FACTORS INFLUENCING TEACHER USE OF OIA

If you feel there were additional influencing factors serving either to encourage or to discourage your use of outdoor instructional activities, please identify these factors in the space provided and feel free to comment on any other aspect of the study:

> "Am given insufficient preparation time for developing a guidebook. Am being pushed (in terms of time) to complete such work, but feel that I am not allowed sufficient opportunity or time to prepare myself for this task."
>
> "I feel that a great many parents and members of the community (and teachers) do not understand what environmental education is. The majority are under the impression that environmental education is skiing, snow shoeing, and recreational activities. They also feel that environmental education or outdoor education is an additional subject, isolated from the regular curriculum. They do not understand that environmental education is only a vehicle to teach the existing curriculum. Perhaps the individual schools and teachers should devote some time to educating the community and parents to the purpose of environmental education in the schools."
>
> "The questionnaire was well written because it was simple to complete and very comprehensive. I believe that the chief factor affecting the instruction of environmental and outdoor education is a sense of confidence on the part of the teacher. Once you have been introduced to a successful "outdoor" teaching experience, you gain confidence that carries you through the "bigger and better things." Once one is started, the thrill becomes contagious. We desperately need to start at the beginning with university courses which are oriented towards environmental education. We now have the next major step, ie. consultants to keep us in contact but they now are doing the initial teaching which should have been done in University."
>
> "It is not a recognized course so we receive no money for instructional supplies. The bussing budget is extremely low so naturally outdoor trips are cancelled first. There is not enough (hell, I mean there is not any!) emphasis placed on high school outdoor education from this council. Outdoor education should be a club and not a course! Too many

students (about 25%) at our school just take it for credits and not because its outdoor education. There is not enought away-from-school time allotted for camp-outs. Too much of the outdoor education stuff that I have seen lately is impractical, i.e. basket making. Let's get down to practical camping!"

"There is a lack of support from the Dept. of Education in identifying where it all fits in the curriculum - show how and where it may be interpreted. There is a lack of environmental sensitivity in materials available in schools - ie. the reading books could contain contributing material."

"Administrators are, as always, the greatest barrier to educational instruction improvement. Having reached their level of imcompetence (the Peter Principle), they are fearful of having classroom teachers become better able to design and carry out programs than they are."

"I was previously a consultant in Physical Education and Outdoor Education, and have concluded that for most situations, the only way that outdoor teaching experience can be ensured for students is for the consultant to be the one who takes the lead. Most teachers are discouraged by, afraid of, and lacking in most of the resources required to teach in the outdoors. Therefore, they must have help, but also the curriculum has to be prescriptive enough so that they can get some compulsion to go out."

"Discouraging factor - the dependency of many teachers upon the few teachers with expertise in the outdoors. This dependency and the reluctance of the same teachers to acquire any expertise, coupled with their insistence that their students are entitled to the benefits of your expertise, constantly puts the work load on the same people and spreads them thinly over hundreds of students."

"Amount of money available to transport students. The fact that no one seems to be that interested in really preserving nature as it is! We must realize that schools can only do so much to help with nature.

Society has got to do a lot more than it is presently doing! More urban areas need to set up nature surroundings so that students don't have to travel to always get to participate in outdoor activity."

"While I realize many worthwhile activities can be carried on right from the school within walking distance, timetabling difficulties, reluctance on part of other staff, and demands of family make it difficult to carry out the planning and actual execution of plans on a smaller scale."

"I think there is a definite need for teacher education in the field of Environment Outdoor Education - practical experience in the field, so that we can be prepared to lead in this."

"Much more emphasis should be placed upon establishing field studies as integral parts of the core areas, particularly in science. Even though I have worked quite extensively with my own students, with students from other classes and with groups of teachers (in field study initiation and organization, etc.), I still have the feeling that field trips are looked upon as "fun and games" situations and not real "out-of-classroom" learning situations. The teacher, I suppose, is primarily responsible. Our primary objective should be to reach all students in environmental education. This can be realized only through the core. Outdoor education programs in electives while they certainly are valuable, reach only those students who take them, and, furthermore, reflect the interest area of a relatively few knowledgeable and dedicated teachers."

"One strong influencing factor is contact with people in the field and getting ideas through them. People like Cy Hampson, Morris Kochanski, John Amatt, have had a strong influence on my interest in the outdoors. They impress me in that they will try new and innovative ideas in outdoor education."

APPENDIX G

TABLES

EXPLANATION OF TABLES

Each table has several categories represented by enclosed boxes, within which is included two figures. The top figure represents the actual number of respondents in that specific category. The bottom figure represents the percentage of the total respondents in the table in that specific category. The row totals indicate the number of active and inactive teachers represented in the tables and the percentage of the total which each group comprises. The column totals indicates the combined number of active and inactive teachers in each of the categories across the top of the table and their respective percentages of the total. Also included in each table is Kendall's tau_c score and the level of significance which it represents.

TABLE 5

PRTOIA Vs, AGE

PRTOIA	AGE COUNT / ROW PCT	25 OR UNDER	26-30	31-40	OVER 40	ROW TOTAL
		1	2	3	4	
1 ACTIVE		9	26	12	8	55
		16.4	47.3	21.8	14.5	64.0
2 INACTIVE		4	7	15	5	31
		12.9	22.6	48.4	16.1	36.0
COLUMN TOTAL		13	33	27	13	86
		15.1	38.4	31.4	15.1	100.0

KENDALL'S TAU C = 0.20498 SIGNIFICANCE (2-TAILED) = 0.0849

TABLE 6

PRTOIA Vs. AGE (≤ 25)

PRTOIA	AGE1 COUNT / ROW PCT	ISE	E	NE	ROW TOTAL
		1	2	3	
1 ACTIVE		5	1	3	9
		55.6	11.1	33.3	69.2
2 INACTIVE		1	1	2	4
		25.0	25.0	50.0	30.8
COLUMN TOTAL		6	2	5	13
		46.2	15.4	38.5	100.0

KENDALL'S TAU C = 0.23669 SIGNIFICANCE (2-TAILED) = 0.5713

TABLE 7

PRTOIA Vs. AGE (26-30)

PRTOIA	COUNT / ROW PCT	AGE1 ISE	E	NE	ROW TOTAL
		1	2	3	
1 ACTIVE		4	10	12	26
		15.4	38.5	46.2	78.8
2 INACTIVE		3	3	1	7
		42.9	42.9	14.3	21.2
COLUMN TOTAL		7	13	13	33
		21.2	39.4	39.4	100.0

KENDALL'S TAU C = -0.27916 SIGNIFICANCE (2-TAILED) = 0.1095

TABLE 8

PRTOIA Vs. AGE (31-40)

PRTOIA	COUNT / ROW PCT	AGE1 ISE	E	NE	ROW TOTAL
		1	2	3	
1 ACTIVE		1	4	7	12
		8.3	33.3	58.3	44.4
2 INACTIVE		1	2	12	15
		6.7	13.3	80.0	55.6
COLUMN TOTAL		2	6	19	27
		7.4	22.2	70.4	100.0

KENDALL'S TAU C = 0.20302 SIGNIFICANCE (2-TAILED) = 0.3566

TABLE 9

PRTOIA Vs, AGE (OVER 40)

PRTOIA	COUNT / ROW PCT	AGE1 ISE 1	NE 3	D 4	ROW TOTAL
1 ACTIVE		1	6	1	8
		12.5	75.0	12.5	61.5
2 INACTIVE		0	5	0	5
		0.0	100.0	0.0	38.5
COLUMN TOTAL		1	11	1	13
		7.7	84.6	7.7	100.0

KENDALL'S TAU C = 0.0 SIGNIFICANCE (2-TAILED) = 0.7053

TABLE 10

PRTOIA Vs. HEALTH

PRTOIA	COUNT / ROW PCT	HEALTH GOOD 1	FAIR 2	ROW TOTAL
1 ACTIVE		54	1	55
		98.2	1.8	64.0
2 INACTIVE		29	2	31
		93.5	6.5	36.0
COLUMN TOTAL		83	3	86
		96.5	3.5	100.0

KENDALL'S TAU C = 0.04273 SIGNIFICANCE (2-TAILED) = 0.6105

TABLE 11

PRTOIA Vs, HEALTH (GOOD)

	HEALTH1					
COUNT / ROW PCT	ISE	E	NE	D		ROW TOTAL
	1	2	3	4		
PRTOIA						
1 ACTIVE	18	27	9	0		54
	33.3	50.0	16.7	0.0		65.1
2 INACTIVE	8	13	7	1		29
	27.6	44.8	24.1	3.4		34.9
CCLUMN TOTAL	26	40	16	1		83
	31.3	48.2	19.3	1.2		100.0

KENDALL'S TAU C = 0.11497 SIGNIFICANCE (2-TAILED) = 0.3402

TABLE 12

PRTOIA Vs. HEALTH (FAIR)

	HEALTH1		
COUNT / ROW PCT	IE	NE	ROW TOTAL
	2	3	
PRTOIA			
1 ACTIVE	1	0	1
	100.0	0.0	33.3
2 INACTIVE	0	2	2
	0.0	100.0	66.7
COLUMN TOTAL	1	2	3
	33.3	66.7	100.0

KENDALL'S TAU C = 0.88889

TABLE 13

PRTOIA Vs, MARITAL STATUS

		MARSTAT			
COUNT / ROW PCT		SINGLE 1	MARRIED 2	DIVORCED 3	ROW TOTAL
PRTOIA					
1 ACTIVE		12	41	2	55
		21.8	74.5	3.6	64.0
2 INACTIVE		5	26	0	31
		16.1	83.9	0.0	36.0
COLUMN TOTAL		17	67	2	86
		19.8	77.9	2.3	100.0

KENDALL'S TAU C = 0.02434 SIGNIFICANCE (2-TAILED) = 0.8834

TABLE 14

PRTOIA Vs. MARITAL STATUS (SINGLE)

		MARSTAT1			
COUNT / ROW PCT		SE 1	E 2	NE 3	ROW TOTAL
PRTOIA					
1 ACTIVE		3	3	6	12
		25.0	25.0	50.0	70.6
2 INACTIVE		1	3	1	5
		20.0	60.0	20.0	29.4
COLUMN TOTAL		4	6	7	17
		23.5	35.3	41.2	100.0

KENDALL'S TAU C = -0.16609 SIGNIFICANCE (2-TAILED) = 0.6626

TABLE 15

PRTOIA Vs. MARITAL STATUS (MARRIED)

PRTOIA	COUNT / ROW PCT	MARSTAT1 ISE (1)	E (2)	NE (3)	D (4)	SD (5)	ROW TOTAL
ACTIVE	1	3	12	19	4	2	40
		7.5	30.0	47.5	10.0	5.0	60.6
INACTIVE	2	2	3	17	4	0	26
		7.7	11.5	65.4	15.4	0.0	39.4
	COLUMN TOTAL	5	15	36	8	2	66
		7.6	22.7	54.5	12.1	3.0	100.0

KENDALL'S TAU C = 0.12948 SIGNIFICANCE (2-TAILED) = 0.3372

TABLE 16

PRTOIA Vs. MATIRAL STATUS (DIVORCED)

		MARSTAT1		
	COUNT / ROW PCT	ISE	NE	ROW TOTAL
		1	3	
PRTOIA	1	1	1	2
ACTIVE		50.0	50.0	100.0
	COLUMN TOTAL	1 50.0	1 50.0	2 100.0

NUMBER OF MISSING OBSERVATIONS = 1

TABLE 17

PRTOIA Vs. CHILDREN LIVING AT HOME

PRTOIA	COUNT / ROW PCT	CHLAH 0	1	2	3	4	5	ROW TOTAL
1 ACTIVE		30	6	13	4	2		55
		54.5	10.9	23.6	7.3	3.6		64.0
2 INACTIVE		13	5	9	3	1		31
		41.9	16.1	29.0	9.7	3.2		36.0
COLUMN TOTAL		43	11	22	7	3		86
		50.0	12.8	25.6	8.1	3.5		100.0

KENDALL'S TAU C = 0.10492 SIGNIFICANCE (2-TAILED) = 0.3730

TABLE 18

PRTOIA Vs, CHILDREN LIVING AT HOME (0)

	CHLAH1					
COUNT / ROW PCT	ISE	E	NE	SD		ROW TOTAL
	1	2	3	5		
PRTOIA						
1 ACTIVE	8	2	20	0		30
	26.7	6.7	66.7	0.0		69.8
2 INACTIVE	7	1	4	1		13
	53.8	7.7	30.8	7.7		30.2
COLUMN TOTAL	15	3	24	1		43
	34.9	7.0	55.8	2.3		100.0

KENDALL'S TAU C = -0.20768 SIGNIFICANCE (2-TAILED) = 0.1846

TABLE 19

PRTOIA Vs. CHILDREN LIVING AT HOME (1)

	CHLAH1		
COUNT / ROW PCT	INE	D	ROW TOTAL
	3	4	
PRTOIA			
1 ACTIVE	3	2	5
	60.0	40.0	50.0
2 INACTIVE	5	0	5
	100.0	0.0	50.0
COLUMN TOTAL	8	2	10
	80.0	20.0	100.0

KENDALL'S TAU C = -0.40000 SIGNIFICANCE (2-TAILED) = 0.4533

TABLE 20

PRTOIA Vs. CHILDREN LIVING AT HOME (2)

	CHLAH1										
PRTOIA	COUNT / ROW PCT	ISE		E		NE		D		SD		ROW TOTAL
		1		2		3		4		5	
ACTIVE	1	2		2		4		3		2		13
		15.4		15.4		30.8		23.1		15.4		59.1
INACTIVE	2	2		1		5		1		0		9
		22.2		11.1		55.6		11.1		0.0		40.9
	COLUMN TOTAL	4		3		9		4		2		22
		18.2		13.6		40.9		18.2		9.1		100.0

KENDALL'S TAU C = -0.23140 SIGNIFICANCE (2-TAILED) = 0.3789

TABLE 21

PRTOIA Vs, CHILDREN LIVING AT HOME (3)

	CHLAH1			
COUNT / ROW PCT	IE	NE		ROW TOTAL
	2	3		
PRTOIA				
1 ACTIVE	2 50.0	2 50.0		4 57.1
2 INACTIVE	0 0.0	3 100.0		3 42.9
COLUMN TOTAL	2 28.6	5 71.4		7 100.0

KENDALL'S TAU C = 0.48980

TABLE 22

PRTOIA Vs. CHILDREN LIVING AT HOME (4)

	CHLAH1			
COUNT / ROW PCT	IE	D		ROW TOTAL
	2	4		
PRTOIA				
1 ACTIVE	0 0.0	2 100.0		2 66.7
2 INACTIVE	1 100.0	0 0.0		1 33.3
COLUMN TOTAL	1 33.3	2 66.7		3 100.0

KENDALL'S TAU C = -0.88889

NUMBER OF MISSING OBSERVATIONS = 1

TABLE 23

PRTOIA Vs. BACKGROUND REARING

PRTOIA	BKGRD: URBAN (1)	SUBURBAN (2)	RURAL (3)	ROW TOTAL
1 ACTIVE	23	5	27	55
	41.8	9.1	49.1	64.0
2 INACTIVE	9	7	15	31
	29.0	22.6	48.4	36.0
COLUMN TOTAL	32	12	42	86
	37.2	14.0	48.8	100.0

KENDALL'S TAU C = 0.05625 SIGNIFICANCE (2-TAILED) = 0.6837

TABLE 24

PRTOIA Vs. BACKGROUND REARING (URBAN)

PRTOIA	BKGRD1: ISE (1)	E (2)	NE (3)	D (4)	ROW TOTAL
1 ACTIVE	2	4	13	4	23
	8.7	17.4	56.5	17.4	71.9
2 INACTIVE	1	1	2	5	9
	11.1	11.1	22.2	55.6	28.1
COLUMN TOTAL	3	5	15	9	32
	9.4	15.6	46.9	28.1	100.0

KENDALL'S TAU C = 0.24609 SIGNIFICANCE (2-TAILED) = 0.1953

TABLE 25

PRTOIA Vs. BACKGROUND REARING (SUBURBAN)

	BKGRD1			
COUNT / ROW PCT	ISE	E	NE	ROW TOTAL
	1	2	3	
PRTOIA				
1 ACTIVE	1	4	0	5
	20.0	80.0	0.0	41.7
2 INACTIVE	2	1	4	7
	28.6	14.3	57.1	58.3
COLUMN TOTAL	3	5	4	12
	25.0	41.7	33.3	100.0

KENDALL'S TAU C = 0.36111 SIGNIFICANCE (2-TAILED) = 0.3870

TABLE 26

PRTOIA Vs. BACKGROUND REARING (RURAL)

	BKGRD1		
COUNT / ROW PCT	ISE	E	ROW TOTAL
	1	2	
PRTOIA			
1 ACTIVE	12	15	27
	44.4	55.6	64.3
2 INACTIVE	5	10	15
	33.3	66.7	35.7
COLUMN TOTAL	17	25	42
	40.5	59.5	100.0

KENDALL'S TAU C = 0.10204 SIGNIFICANCE (2-TAILED) = 0.7111

TABLE 27

PRTOIA Vs. YEARS SINCE ATTENDANCE AT UNIVERSITY

PRTOIA	COUNT / ROW PCT	YRSAUN 1-5 (1)	6-10 (2)	11-15 (3)	OVER 15 (4)	ROW TOTAL
1 ACTIVE		41	10	2	2	55
		74.5	18.2	3.6	3.6	64.0
2 INACTIVE		22	6	2	1	31
		71.0	19.4	6.5	3.2	36.0
	COLUMN TOTAL	63	16	4	3	86
		73.3	18.6	4.7	3.5	100.0

KENDALL'S TAU C = 0.03515 SIGNIFICANCE (2-TAILED) = 0.7687

TABLE 28

PRTOIA Vs. DEGREES HELD

PRTOIA	COUNT / ROW PCT	DEGHD 1 BED SCIENCE	2 BED PHY ED	3 BED SOC STUDIES	4 BED LANG	5 BED-MATH	6 MED	7 OTHER	ROW TOTAL
ACTIVE	1	11	11	9	2	2	3	15	53
		20.8	20.8	17.0	3.8	3.8	5.7	28.3	63.9
INACTIVE	2	8	5	4	5	3	0	5	30
		26.7	16.7	13.3	16.7	10.0	0.0	16.7	36.1
	CCLUMN TOTAL	19	16	13	7	5	3	20	83
		22.9	19.3	15.7	8.4	6.0	3.6	24.1	100.0

KENDALL'S TAU C = -0.08477 SIGNIFICANCE (2-TAILED) = 0.5016

NUMBER OF MISSING OBSERVATIONS = 3

TABLE 29

PRTOIA Vs. MAJOR TEACHING AREA

PRTOIA	COUNT / ROW PCT	MAGTEA 1 IPHY ED	2 SCIENCE	3 LANGUAGE ARTS	4 SOCIAL STUDIES	5 MATH	6 OTHER	7 ELEMENTARY	ROW TOTAL
1 ACTIVE		14	14	5	11	2	2	7	55
		25.5	25.5	9.1	20.0	3.6	3.6	12.7	64.0
2 INACTIVE		4	14	6	0	3	2	2	31
		12.9	45.2	19.4	0.0	9.7	6.5	6.5	36.0
	CCLUMN TOTAL	18	28	11	11	5	4	9	86
		20.9	32.6	12.8	12.8	5.8	4.7	10.5	100.0

KENDALL'S TAU C = -0.01677 SIGNIFICANCE (2-TAILED) = 0.9125

TABLE 30

PRTOIA Vs. MAJOR TEACHING AREA (PHY.ED.)

	MAGTEA1			
COUNT / ROW PCT	ISE	E	NE	ROW TOTAL
	1	2	3	
PRTOIA				
1 ACTIVE	7	4	2	13
	53.8	30.8	15.4	76.5
2 INACTIVE	0	3	1	4
	0.0	75.0	25.0	23.5
CCLUMN TOTAL	7	7	3	17
	41.2	41.2	17.6	100.0

KENDALL'S TAU C = 0.35986 SIGNIFICANCE (2-TAILED) = 0.1837

TABLE 31

PRTOIA Vs. MAJOR TEACHING AREA (SCIENCE)

	MAGTEA1			
COUNT / ROW PCT	ISE	E	NE	ROW TOTAL
	1	2	3	
PRTOIA				
1 ACTIVE	5	6	3	14
	35.7	42.9	21.4	50.0
2 INACTIVE	5	6	3	14
	35.7	42.9	21.4	50.0
COLUMN TOTAL	10	12	6	28
	35.7	42.9	21.4	100.0

KENDALL'S TAU C = 0.0 SIGNIFICANCE (2-TAILED) = 0.8629

TABLE 32

PRTOIA Vs. MAJOR TEACHING AREA (LANG.ARTS)

PRTOIA	COUNT / ROW PCT	MAGTEA1 ISE	E	NE	ROW TOTAL
		1	2	3	
1 ACTIVE		1	1	3	5
		20.0	20.0	60.0	45.5
2 INACTIVE		1	1	4	6
		16.7	16.7	66.7	54.5
COLUMN TOTAL		2	2	7	11
		18.2	18.2	63.6	100.0

KENDALL'S TAU C = 0.06612 SIGNIFICANCE (2-TAILED) = 0.9364

TABLE 33

PRTOIA Vs. MAJOR TEACHING AREA (SOC.STUDIES)

PRTOIA	COUNT / ROW PCT	MAGTEA1 ISE	E	NE	D	ROW TOTAL
		1	2	3	4	
1 ACTIVE		1	5	4	1	11
		9.1	45.5	36.4	9.1	100.0
CCLUMN TOTAL		1	5	4	1	11
		9.1	45.5	36.4	9.1	100.0

TABLE 34

PRTOIA Vs. MAJOR TEACHING AREA (MATH.)

PRTOIA	COUNT / ROW PCT	MAGTEA1 ISE 1	E 2	NE 3	D 4	ROW TOTAL
1 ACTIVE		1	0	0	1	2
		50.0	0.0	0.0	50.0	40.0
2 INACTIVE		0	1	2	0	3
		0.0	33.3	66.7	0.0	60.0
COLUMN TOTAL		1	1	2	1	5
		20.0	20.0	40.0	20.0	100.0

KENDALL'S TAU C = 0.0

TABLE 35

PRTOIA Vs. MAJOR TEACHING AREA (OTHER)

PRTOIA	COUNT / ROW PCT	MAGTEA1 IE 2	NE 3	D 4	ROW TOTAL
1 ACTIVE		1	1	0	2
		50.0	50.0	0.0	50.0
2 INACTIVE		0	1	1	2
		0.0	50.0	50.0	50.0
COLUMN TOTAL		1	2	1	4
		25.0	50.0	25.0	100.0

KENDALL'S TAU C = 0.75000

TABLE 36

PRTOIA Vs. MAJOR TEACHING AREA (ELEMENTARY)

	MAGTEA1								
COUNT / ROW PCT	ISE		E		NE		D		ROW TOTAL
	1		2		3		4		
PRTOIA									
1	2		2		3		0		7
ACTIVE	28.6		28.6		42.9		0.0		77.8
2	1		0		0		1		2
INACTIVE	50.0		0.0		0.0		50.0		22.2
COLUMN TOTAL	3	33.3	2	22.2	3	33.3	1	11.1	9 100.0

KENDALL'S TAU C = 0.09877

NUMBER OF MISSING OBSERVATIONS = 1

TABLE 37

PRTOIA Vs. COLLEGE PREPARATION FOR OIA

	COLED				
COUNT / ROW PCT	IYES		NO		ROW TOTAL
	1		2		
PRTOIA					
1	17		38		55
ACTIVE	30.9		69.1		64.0
2	7		24		31
INACTIVE	22.6		77.4		36.0
CCLUMN TOTAL	24	27.9	62	72.1	86 100.0

KENDALL'S TAU C = 0.07680 SIGNIFICANCE (2-TAILED) = 0.5666

TABLE 38

PRTOIA Vs. COLLEGE PREPARATION FOR OIA (YES)

	COLED1					
COUNT / ROW PCT	ISE	E	NE	D	SD	ROW TOTAL
	1	2	3	4	5	
PRTOIA						
1 ACTIVE	3	6	4	1	3	17
	17.6	35.3	23.5	5.9	17.6	70.8
2 INACTIVE	3	2	1	1	0	7
	42.9	28.6	14.3	14.3	0.0	29.2
COLUMN TOTAL	6	8	5	2	3	24
	25.0	33.3	20.8	8.3	12.5	100.0

KENDALL'S TAU C = -0.25694 SIGNIFICANCE (2-TAILED) = 0.2648

TABLE 39

PRTOIA Vs. COLLEGE PREPARATION FOR OIA (NO)

PRTOIA	COUNT / ROW PCT	COLED1 ISE 1	E 2	NE 3	D 4	SD 5	ROW TOTAL
1 ACTIVE	1	2	0	13	17	6	38
		5.3	0.0	34.2	44.7	15.8	61.3
2 INACTIVE	2	1	2	6	10	5	24
		4.2	8.3	25.0	41.7	20.8	38.7
	COLUMN TOTAL	3	2	19	27	11	62
		4.8	3.2	30.6	43.5	17.7	100.0

KENDALL'S TAU C = 0.02081 SIGNIFICANCE (2-TAILED) = 0.9250

TABLE 40

PRTOIA Vs. WORK WITH YOUTH GROUPS

PRTOIA	COUNT / ROW PCT	WWYGPS 1 MUCH	2 SOME	3 LITTLE	4 NOT AT ALL	ROW TOTAL
1 ACTIVE		15	19	12	9	55
		27.3	34.5	21.8	16.4	64.0
2 INACTIVE		3	9	6	13	31
		9.7	29.0	19.4	41.9	36.0
	COLUMN TOTAL	18	28	18	22	86
		20.9	32.6	20.9	25.6	100.0

KENDALL'S TAU C = 0.31044 SIGNIFICANCE (2-TAILED) = 0.0091

TABLE 41

PRTOIA Vs. WORK WITH YOUTH GROUPS (MUCH)

PRTOIA	COUNT / ROW PCT	WWYGPS1 ISE	2 E	3 NE	ROW TOTAL
1 ACTIVE		5	9	1	15
		33.3	60.0	6.7	83.3
2 INACTIVE		2	1	0	3
		66.7	33.3	0.0	16.7
	COLUMN TOTAL	7	10	1	18
		38.9	55.6	5.6	100.0

KENDALL'S TAU C = -0.19753 SIGNIFICANCE (2-TAILED) = 0.4381

TABLE 42

PRTOIA Vs. WORK WITH YOUTH GROUPS (SOME)

PRTOIA	COUNT / ROW PCT	WWYGPS1 ISE	E	NE	D	ROW TOTAL
		1	2	3	4	
1 ACTIVE		1	13	4	1	19
		5.3	68.4	21.1	5.3	67.9
2 INACTIVE		2	4	2	1	9
		22.2	44.4	22.2	11.1	32.1
COLUMN TOTAL		3	17	6	2	28
		10.7	60.7	21.4	7.1	100.0

KENDALL'S TAU C = -0.04082 SIGNIFICANCE (2-TAILED) = 0.9254

TABLE 43

PRTOIA Vs. WORK WITH YOUTH GROUPS (LITTLE)

PRTOIA	COUNT / ROW PCT	WWYGPS1 IE	NE	D	ROW TOTAL
		2	3	4	
1 ACTIVE		4	5	3	12
		33.3	41.7	25.0	66.7
2 INACTIVE		0	5	1	6
		0.0	83.3	16.7	33.3
COLUMN TOTAL		4	10	4	18
		22.2	55.6	22.2	100.0

KENDALL'S TAU C = 0.17284 SIGNIFICANCE (2-TAILED) = 0.6209

TABLE 44

PRTOIA Vs, WORK WITH YOUTH GROUPS (NOT AT ALL)

PRTOIA	COUNT / ROW PCT	WWYGPS1 ISE 1	NE 3	D 4	SD 5	ROW TOTAL
1 ACTIVE		0	4	4	1	9
		0.0	44.4	44.4	11.1	40.9
2 INACTIVE		1	5	5	2	13
		7.7	38.5	38.5	15.4	59.1
COLUMN TOTAL		1	9	9	3	22
		4.5	40.9	40.9	13.6	100.0

KENDALL'S TAU C = -0.02479 SIGNIFICANCE (2-TAILED) = 0.9809

TABLE 45

PRTOIA Vs. INSERVICE TRAINING

PRTOIA	COUNT / ROW PCT	INSERT IMUCH 1	SOME 2	LITTLE 3	NOT AT ALL 4	ROW TOTAL
1 ACTIVE		13	28	5	9	55
		23.6	50.9	9.1	16.4	64.0
2 INACTIVE		5	10	12	4	31
		16.1	32.3	38.7	12.9	36.0
COLUMN TOTAL		18	38	17	13	86
		20.9	44.2	19.8	15.1	100.0

KENDALL'S TAU C = 0.18821 SIGNIFICANCE (2-TAILED) = 0.1124

TABLE 46

PRTOIA Vs. INSERVICE TRAINING (MUCH)

	COUNT / ROW PCT	INSERT1 ISE 1	E 2	NE 3	ROW TOTAL
PRTOIA					
1 ACTIVE		8	3	2	13
		61.5	23.1	15.4	72.2
2 INACTIVE		4	1	0	5
		80.0	20.0	0.0	27.8
COLUMN TOTAL		12	4	2	18
		66.7	22.2	11.1	100.0

KENDALL'S TAU C = -0.17284 SIGNIFICANCE (2-TAILED) = 0.5739

TABLE 47

PRTOIA Vs. INSERVICE TRAINING (SOME)

	COUNT / ROW PCT	INSERT1 ISE 1	E 2	NE 3	ROW TOTAL
PRTOIA					
1 ACTIVE		4	23	1	28
		14.3	82.1	3.6	73.7
2 INACTIVE		4	5	1	10
		40.0	50.0	10.0	26.3
COLUMN TOTAL		8	28	2	38
		21.1	73.7	5.3	100.0

KENDALL'S TAU C = -0.14958 SIGNIFICANCE (2-TAILED) = 0.3373

TABLE 48

PRTOIA Vs. INSERVICE TRAINING (LITTLE)

	INSERT1				
COUNT / ROW PCT	IE	NE	D		ROW TOTAL
	2	3	4		
PRTOIA 1 ACTIVE	1	2	2		5
	20.0	40.0	40.0		29.4
2 INACTIVE	3	3	6		12
	25.0	25.0	50.0		70.6
COLUMN TOTAL	4	5	8		17
	23.5	29.4	47.1		100.0

KENDALL'S TAU C = 0.04152 SIGNIFICANCE (2-TAILED) = 0.9434

TABLE 49

PRTOIA Vs. INSERVICE TRAINING (NOT AT ALL)

	INSERT1				
COUNT / ROW PCT	INE	D	SD		ROW TOTAL
	3	4	5		
PRTOIA 1 ACTIVE	4	2	3		9
	44.4	22.2	33.3		69.2
2 INACTIVE	0	2	2		4
	0.0	50.0	50.0		30.8
COLUMN TOTAL	4	4	5		13
	30.8	30.8	38.5		100.0

KENDALL'S TAU C = 0.33136 SIGNIFICANCE (2-TAILED) = 0.3793

TABLE 50

PRTOIA Vs, EXPERIENCE IN SCHOOL WITH OIA

	EXSWOIA		
COUNT / ROW PCT	YES	NO	ROW TOTAL
	1	2	
PRTOIA			
1 ACTIVE	28	27	55
	50.9	49.1	64.0
2 INACTIVE	12	19	31
	38.7	61.3	36.0
COLUMN TOTAL	40	46	86
	46.5	53.5	100.0

KENDALL'S TAU C = 0.11249 SIGNIFICANCE (2-TAILED) = 0.3904

TABLE 51

PRTOIA Vs. EXPERIENCE IN SCHOOL WITH OIA (YES)

	EXSWOIA1			
COUNT / ROW PCT	SE	E	NE	ROW TOTAL
	1	2	3	
PRTOIA				
1 ACTIVE	13	12	3	28
	46.4	42.9	10.7	70.0
2 INACTIVE	4	6	2	12
	33.3	50.0	16.7	30.0
COLUMN TOTAL	17	18	5	40
	42.5	45.0	12.5	100.0

KENDALL'S TAU C = 0.12500 SIGNIFICANCE (2-TAILED) = 0.5172

TABLE 52

PRTOIA Vs. EXPERIENCE IN SCHOOLS WITH OIA (NO)

		EXSWOIA1					
	COUNT / ROW PCT	ISE	E	NE	D	SD	ROW TOTAL
		1	2	3	4	5	
PRTOIA							
1		1	3	15	7	1	27
ACTIVE		3.7	11.1	55.6	25.9	3.7	58.7
2		2	0	3	11	3	19
INACTIVE		10.5	0.0	15.8	57.9	15.8	41.3
	COLUMN TOTAL	3	3	18	18	4	46
		6.5	6.5	39.1	39.1	8.7	100.0

KENDALL'S TAU C = 0.40076 SIGNIFICANCE (2-TAILED) = 0.0142

TABLE 53

PRTOIA Vs. LEVEL OF INTEREST IN OUTDOORS

		LVINOUT		
	COUNT / ROW PCT	HIGH	MEDIUM	ROW TOTAL
		1	2	
PRTOIA				
1		53	2	55
ACTIVE		96.4	3.6	64.0
2		27	4	31
INACTIVE		87.1	12.9	36.0
	COLUMN TOTAL	80	6	86
		93.0	7.0	100.0

KENDALL'S TAU C = 0.08545 SIGNIFICANCE (2-TAILED) = 0.2412

TABLE 54

PRTOIA Vs. LEVEL OF INTEREST IN OUTDOORS (HIGH)

		LVINOUT1			
	COUNT / ROW PCT	SE	E	NE	ROW TOTAL
		1	2	3	
PRTOIA					
1		39	12	2	53
ACTIVE		73.6	22.6	3.8	66.3
2		16	11	0	27
INACTIVE		59.3	40.7	0.0	33.8
	COLUMN TOTAL	55	23	2	80
		68.8	28.8	2.5	100.0

KENDALL'S TAU C = 0.11437 SIGNIFICANCE (2-TAILED) = 0.3042

TABLE 55

PRTOIA Vs. LEVEL OF INTEREST IN OUTDOORS (MEDIUM)

		LVINOUT1				
COUNT / ROW PCT		ISE	E	NE		ROW TOTAL
		1	2	3		
PRTOIA						
	1	2	0	0		2
ACTIVE		100.0	0.0	0.0		33.3
	2	0	2	2		4
INACTIVE		0.0	50.0	50.0		66.7
CCLUMN TOTAL		2	2	2		6
		33.3	33.3	33.3		100.0

KENDALL'S TAU C = 0.88889

TABLE 56

PRTOIA Vs. FAMILIARITY WITH THE OUTDOORS

		FMOUT				
COUNT / ROW PCT		IVERY KNOW	SOME KNOW	LITTLE KNOW	K	ROW TOTAL
		1	2	3		
PRTOIA						
	1	25	29	1		55
ACTIVE		45.5	52.7	1.8		64.0
	2	6	22	3		31
INACTIVE		19.4	71.0	9.7		36.0
CCLUMN TOTAL		31	51	4		86
		36.0	59.3	4.7		100.0

KENDALL'S TAU C = 0.27582 SIGNIFICANCE (2-TAILED) = 0.0109

TABLE 57

PRTOIA Vs. FAMILIARITY WITH THE OUTDOORS (VERY KNOWLEDGEABLE)

PRTOIA	COUNT / ROW PCT	FMOUT1 ISE	E	NE		ROW TOTAL
		1	2	3		
1 ACTIVE		20	3	2		25
		80.0	12.0	8.0		80.6
2 INACTIVE		2	4	0		6
		33.3	66.7	0.0		19.4
COLUMN TOTAL		22	7	2		31
		71.0	22.6	6.5		100.0

KENDALL'S TAU C = 0.25806 SIGNIFICANCE (2-TAILED) = 0.0879

TABLE 58

PRTOIA Vs. FAMILIARITY WITH THE OUTDOORS (SOME KNOWLEDGE)

PRTOIA	COUNT / ROW PCT	FMOUT1 ISE	E	NE	D		ROW TOTAL
		1	2	3	4		
1 ACTIVE		6	15	4	4		29
		20.7	51.7	13.8	13.8		56.9
2 INACTIVE		4	12	4	2		22
		18.2	54.5	18.2	9.1		43.1
COLUMN TOTAL		10	27	8	6		51
		19.6	52.9	15.7	11.8		100.0

KENDALL'S TAU C = 0.00308 SIGNIFICANCE (2-TAILED) = 0.9462

TABLE 59

PRTOIA Vs. FAMILIARITY WITH THE OUTDOORS (LITTLE KNOWLEDGE)

PRTOIA	FMOUT1 2	FMOUT1 4	ROW TOTAL
1 ACTIVE	0 0.0	1 100.0	1 25.0
2 INACTIVE	1 33.3	2 66.7	3 75.0
COLUMN TOTAL	1 25.0	3 75.0	4 100.0

KENDALL'S TAU C = -0.25000

TABLE 60

PRTOIA Vs. CLASS SIZE

PRTOIA	CLSIZE 1 LESS THAN 26	CLSIZE 2 26-35	CLSIZE 3 MORE THAN 35	ROW TOTAL
1 ACTIVE	22 40.0	31 56.4	2 3.6	55 64.0
2 INACTIVE	11 35.5	20 64.5	0 0.0	31 36.0
COLUMN TOTAL	33 38.4	51 59.3	2 2.3	86 100.0

KENDALL'S TAU C = 0.02001 SIGNIFICANCE (2-TAILED) = 0.9352

TABLE 61

PRTOIA Vs. CLASS SIZE (26)

	CLSIZE1					
COUNT / ROW PCT	ISE	E	NE	D		ROW TOTAL
	1	2	3	4		
PRTOIA						
1 ACTIVE	8	8	5	1		22
	36.4	36.4	22.7	4.5		66.7
2 INACTIVE	4	3	3	1		11
	36.4	27.3	27.3	9.1		33.3
COLUMN TOTAL	12	11	8	2		33
	36.4	33.3	24.2	6.1		100.0

KENDALL'S TAU C = 0.05877 SIGNIFICANCE (2-TAILED) = 0.8327

TABLE 62

PRTOIA Vs. CLASS SIZE (26-35)

PRTOIA	CLSIZE1	1 ISE	2 E	3 NE	4 D	5 SD	ROW TOTAL
1 ACTIVE	COUNT	2	5	13	9	2	31
	ROW PCT	6.5	16.1	41.9	29.0	6.5	60.8
2 INACTIVE	COUNT	1	2	4	10	3	20
	ROW PCT	5.0	10.0	20.0	50.0	15.0	39.2
COLUMN TOTAL		3	7	17	19	5	51
		5.9	13.7	33.3	37.3	9.8	100.0

KENDALL'S TAU C = 0.27374 SIGNIFICANCE (2-TAILED) = 0.0823

TABLE 63

PRTOIA Vs, CLASS SIZE (35)

		CLSIZE1	
	COUNT / ROW PCT	ID 4	ROW TOTAL
PRTOIA			
1 ACTIVE		2 100.0	2 100.0
	CCLUMN TOTAL	2 100.0	2 100.0

TABLE 64

PRTOIA Vs. GRADE LEVEL

		GRDLEV				
	COUNT / ROW PCT	1-3	4-6	7-9	10-12	ROW TOTAL
		1	2	3	4	
PRTOIA						
1 ACTIVE		5 9.1	21 38.2	21 38.2	8 14.5	55 64.0
2 INACTIVE		4 12.9	14 45.2	11 35.5	2 6.5	31 36.0
	CCLUMN TOTAL	9 10.5	35 40.7	32 37.2	10 11.6	86 100.0

KENDALL'S TAU C = -0.13196 SIGNIFICANCE (2-TAILED) = 0.2705

TABLE 65

PRTOIA Vs, GRADE LEVEL (1-3)

		GRDLEV1				
	COUNT / ROW PCT	ISE	E	NE	D	ROW TOTAL
		1	2	3	4	
PRTOIA						
	1	2	0	3	0	5
ACTIVE		40.0	0.0	60.0	0.0	55.6
	2	1	2	0	1	4
INACTIVE		25.0	50.0	0.0	25.0	44.4
	COLUMN TOTAL	3	2	3	1	9
		33.3	22.2	33.3	11.1	100.0

KENDALL'S TAU C = 0.0

TABLE 66

PRTOIA Vs. GRADE LEVEL (4-6)

		GRDLEV1			
	COUNT / ROW PCT	ISE	E	NE	ROW TOTAL
		1	2	3	
PRTOIA					
	1	7	8	5	20
ACTIVE		35.0	40.0	25.0	58.8
	2	2	4	8	14
INACTIVE		14.3	28.6	57.1	41.2
	COLUMN TOTAL	9	12	13	34
		26.5	35.3	38.2	100.0

KENDALL'S TAU C = 0.35294 SIGNIFICANCE (2-TAILED) = 0.0816

TABLE 67

PRTOIA Vs. GRADE LEVEL (7-9)

PRTOIA	COUNT / ROW PCT	GRDLEV1 ISE	E	NE	D		ROW TOTAL
		1	2	3	4		
1 ACTIVE		3	8	8	2		21
		14.3	38.1	38.1	9.5		65.6
2 INACTIVE		1	3	5	2		11
		9.1	27.3	45.5	18.2		34.4
COLUMN TOTAL		4	11	13	4		32
		12.5	34.4	40.6	12.5		100.0

KENDALL'S TAU C = 0.17188 SIGNIFICANCE (2-TAILED) = 0.4160

TABLE 68

PRTOIA Vs. GRADE LEVEL (10-12)

PRTOIA	COUNT / ROW PCT	GRDLEV1 ISE	E	NE	D		ROW TOTAL
		1	2	3	4		
1 ACTIVE		2	3	2	1		8
		25.0	37.5	25.0	12.5		80.0
2 INACTIVE		0	1	1	0		2
		0.0	50.0	50.0	0.0		20.0
COLUMN TOTAL		2	4	3	1		10
		20.0	40.0	30.0	10.0		100.0

KENDALL'S TAU C = 0.12000 SIGNIFICANCE (2-TAILED) = 0.8551

NUMBER OF MISSING OBSERVATIONS = 1

TABLE 69

PRTOIA Vs. ATTITUDE OF ADMINISTRATION TO OIA

COUNT / ROW PCT	ADMIN: INHERENT TO (1)	SUPPLEMENTAL TO (2)	ROW TOTAL
PRTOIA 1 ACTIVE	24	30	54
	44.4	55.6	63.5
PRTOIA 2 INACTIVE	6	25	31
	19.4	80.6	36.5
COLUMN TOTAL	30	55	85
	35.3	64.7	100.0

KENDALL'S TAU C = 0.23253 SIGNIFICANCE (2-TAILED) = 0.0374

NUMBER OF MISSING OBSERVATIONS = 1

TABLE 70

PRTOIA Vs. ATTITUDE OF ADMINISTRATION TO OIA (INHERENT TO)

COUNT / ROW PCT	ADMIN1: ISE (1)	E (2)	NE (3)	ROW TOTAL
PRTOIA 1 ACTIVE	11	13	0	24
	45.8	54.2	0.0	80.0
PRTOIA 2 INACTIVE	1	2	3	6
	16.7	33.3	50.0	20.0
COLUMN TOTAL	12	15	3	30
	40.0	50.0	10.0	100.0

KENDALL'S TAU C = 0.36000 SIGNIFICANCE (2-TAILED) = 0.0343

TABLE 71

PRTOIA Vs. ATTITUDE OF ADMINISTRATION TO OIA (SUPPLEMENTAL TO)

PRTOIA	COUNT / ROW PCT	ADMIN1 1 SE	2 E	3 NE	4 D	5 SD	ROW TOTAL
1 ACTIVE		2	12	11	4	1	30
		6.7	40.0	36.7	13.3	3.3	54.5
2 INACTIVE		0	8	10	4	3	25
		0.0	32.0	40.0	16.0	12.0	45.5
COLUMN TOTAL		2	20	21	8	4	55
		3.6	36.4	38.2	14.5	7.3	100.0

KENDALL'S TAU C = 0.21289 SIGNIFICANCE (2-TAILED) = 0.1681

NUMBER OF MISSING OBSERVATIONS = 1

TABLE 72

PTROIA Vs. CURRICULAR ORGANIZATION

PRTOIA	COUNT / ROW PCT	CURORG 1	2	3	ROW TOTAL
1 ACTIVE		20	14	18	52
		38.5	26.9	34.6	63.4
2 INACTIVE		6	12	12	30
		20.0	40.0	40.0	36.6
COLUMN TOTAL		26	26	30	82
		31.7	31.7	36.6	100.0

KENDALL'S TAU C = 0.14277 SIGNIFICANCE (2-TAILED) = 0.2620

NUMBER OF MISSING OBSERVATIONS = 4

TABLE 73

PRTOIA Vs. CURRICULAR ORGANIZATION (SELF-CONTAINED CLASSROOMS)

PRTOIA	CURORG1	ISE 1	E 2	NE 3	D 4	SD 5	ROW TOTAL
ACTIVE	1	5	7	6	2	0	20
	ROW PCT	25.0	35.0	30.0	10.0	0.0	76.9
INACTIVE	2	2	0	3	0	1	6
	ROW PCT	33.3	0.0	50.0	0.0	16.7	23.1
	COLUMN TOTAL	7	7	9	2	1	26
		26.9	26.9	34.6	7.7	3.8	100.0

KENDALL'S TAU C = 0.11834 SIGNIFICANCE (2-TAILED) = 0.5952

TABLE 74

PRTOIA Vs. CURRICULAR ORGANIZATION (SELF-CONTAINED, EXCEPT FOR SPECIAL CLASSES)

	CURORG1				
COUNT / ROW PCT	ISE	E	NE	D	ROW TOTAL
	1	2	3	4	
PRTOIA					
1 ACTIVE	3	3	4	4	14
	21.4	21.4	28.6	28.6	53.8
2 INACTIVE	0	5	5	2	12
	0.0	41.7	41.7	16.7	46.2
COLUMN TOTAL	3	8	9	6	26
	11.5	30.8	34.6	23.1	100.0

KENDALL'S TAU C = 0.02959 SIGNIFICANCE (2-TAILED) = 0.9857

TABLE 75

PRTOIA Vs. CURRICULAR ORGANIZATION (ROTATING CLASSES)

	CURORG1			
COUNT / ROW PCT	IE	NE	D	ROW TOTAL
	2	3	4	
PRTOIA				
1 ACTIVE	4	9	4	17
	23.5	52.9	23.5	58.6
2 INACTIVE	3	8	1	12
	25.0	66.7	8.3	41.4
COLUMN TOTAL	7	17	5	29
	24.1	58.6	17.2	100.0

KENDALL'S TAU C = -0.12366 SIGNIFICANCE (2-TAILED) = 0.6384

NUMBER OF MISSING OBSERVATIONS = 5

TABLE 76

PRTOIA Vs. AVAILABILITY OF CURRICULUM GUIDES

		CURGDS		
COUNT / ROW PCT	YES	NO	ROW TOTAL
PRTOIA	1	2	
1 ACTIVE	40	14	54
	74.1	25.9	64.3
2 INACTIVE	19	11	30
	63.3	36.7	35.7
COLUMN TOTAL	59	25	84
	70.2	29.8	100.0

KENDALL'S TAU C = 0.09864 SIGNIFICANCE (2-TAILED) = 0.4366

NUMBER OF MISSING OBSERVATIONS = 2

TABLE 77

PRTOIA Vs. AVAILABILITY OF CURRICULUM GUIDES (YES)

		CURGDS1			
COUNT / ROW PCT	SE	E	NE	ROW TOTAL
PRTOIA	1	2	3	
1 ACTIVE	4	28	8	40
	10.0	70.0	20.0	67.8
2 INACTIVE	3	10	6	19
	15.8	52.6	31.6	32.2
COLUMN TOTAL	7	38	14	59
	11.9	64.4	23.7	100.0

KENDALL'S TAU C = 0.05056 SIGNIFICANCE (2-TAILED) = 0.7795

TABLE 78

PRTOIA Vs. AVAILABILITY OF CURRICULUM GUIDES (NO)

PRTOIA	COUNT / ROW PCT	CURGDS1 1 ISE	2 E	3 NE	4 D	5 SD	ROW TOTAL
1 ACTIVE		3	1	2	5	3	14
		21.4	7.1	14.3	35.7	21.4	58.3
2 INACTIVE		0	1	0	4	5	10
		0.0	10.0	0.0	40.0	50.0	41.7
	CCLUMN TOTAL	3	2	2	9	8	24
		12.5	8.3	8.3	37.5	33.3	100.0

KENDALL'S TAU C = 0.41667 SIGNIFICANCE (2-TAILED) = 0.0800

NUMBER OF MISSING OBSERVATIONS = 3

TABLE 79

PRTOIA Vs. DO GUIDES REFLECT OPPORTUNITY TO USE OIA?

	REFOPP		
COUNT / ROW PCT	YES (1)	NO (2)	ROW TOTAL
PRTOIA			
1 ACTIVE	38 / 71.7	15 / 28.3	53 / 64.6
2 INACTIVE	15 / 51.7	14 / 48.3	29 / 35.4
COLUMN TOTAL	53 / 64.6	29 / 35.4	82 / 100.0

KENDALL'S TAU C = 0.18263 SIGNIFICANCE (2-TAILED) = 0.1193

NUMBER OF MISSING OBSERVATIONS = 4

TABLE 80

PRTOIA Vs. DO GUIDES REFLECT OPPORTUNITY TO USE OIA? (YES)

	REFOPP1					
COUNT / ROW PCT	SE (1)	E (2)	NE (3)	D (4)		ROW TOTAL
PRTOIA						
1 ACTIVE	4 / 10.5	28 / 73.7	6 / 15.8	0 / 0.0		38 / 71.7
2 INACTIVE	3 / 20.0	10 / 66.7	1 / 6.7	1 / 6.7		15 / 28.3
COLUMN TOTAL	7 / 13.2	38 / 71.7	7 / 13.2	1 / 1.9		53 / 100.0

KENDALL'S TAU C = -0.07405 SIGNIFICANCE (2-TAILED) = 0.5904

TABLE 81 .

PRTOIA Vs. DO GUIDES REFLECT OPPORTUNITY TO USE OIA (NO)

PRTOIA	COUNT / ROW PCT	REFOPP1 1 ISE	2 E	3 NE	4 D	5 SD	ROW TOTAL
1 ACTIVE	1	1	1	5	4	4	15
		6.7	6.7	33.3	26.7	26.7	51.7
2 INACTIVE	2	0	1	6	4	3	14
		0.0	7.1	42.9	28.6	21.4	48.3
	COLUMN TOTAL	1	2	11	8	7	29
		3.4	6.9	37.9	27.6	24.1	100.0

KENDALL'S TAU C = -0.01427 SIGNIFICANCE (2-TAILED) = 0.9886

NUMBER OF MISSING OBSERVATIONS = 4

TABLE 82

PRTOIA Vs. PERMISSION TO USE OIA- NO TRANSPORTATION REQUIRED

PRTOIA	PRNOTRA DIFFICULT	AVERAGE	SIMPLE	ROW TOTAL
1 ACTIVE	3	13	39	55
	5.5	23.6	70.9	64.0
2 INACTIVE	5	10	16	31
	16.1	32.3	51.6	36.0
COLUMN TOTAL	8	23	55	86
	9.3	26.7	64.0	100.0

KENDALL'S TAU C = -0.19686 SIGNIFICANCE (2-TAILED) = 0.0692

TABLE 83

PRTOIA Vs. PERMISSION TO USE OIA - NO TRANSPORTATION REQUIRED (DIFFICULT)

PRTOIA	PRNOTRA1 NE	D	SD	ROW TOTAL
1 ACTIVE	0	1	1	3
	0.0	33.3	33.3	37.5
2 INACTIVE	1	0	3	1	5
	20.0	0.0	60.0	20.0	62.5
COLUMN TOTAL	1	1	4	2	8
	12.5	12.5	50.0	25.0	100.0

KENDALL'S TAU C = -0.06250

TABLE 84

PRTOIA Vs. PERMISSION TO USE OIA - NO TRANSPORTATION REQUIRED
(AVERAGE)

PRTOIA	COUNT / ROW PCT	PRNOTRA1 ISE	E	NE	D	ROW TOTAL
		1	2	3	4	
1 ACTIVE		4	5	4	0	13
		30.8	38.5	30.8	0.0	56.5
2 INACTIVE		1	0	8	1	10
		10.0	0.0	80.0	10.0	43.5
	COLUMN TOTAL	5	5	12	1	23
		21.7	21.7	52.2	4.3	100.0

KENDALL'S TAU C = 0.57467 SIGNIFICANCE (2-TAILED) = 0.0146

TABLE 85

PRTOIA Vs. PERMISSION TO USE OIA - NO TRANSPORTATION REQUIRED
(SIMPLE)

PRTOIA	COUNT / ROW PCT	PRNOTRA1 ISE	E	NE	ROW TOTAL
		1	2	3	
1 ACTIVE		21	17	1	39
		53.8	43.6	2.6	70.9
2 INACTIVE		5	10	1	16
		31.3	62.5	6.3	29.1
	COLUMN TOTAL	26	27	2	55
		47.3	49.1	3.6	100.0

KENDALL'S TAU C = 0.19570 SIGNIFICANCE (2-TAILED) = 0.1580

TABLE 86

PRTOIA Vs. PERMISSION TO USE OIA - TRANSPORTATION REQUIRED

PRTOIA	PROTRA 1 (DIFFICULT)	2 (AVERAGE)	3 (SIMPLE)	ROW TOTAL
1 ACTIVE	11	30	14	55
	20.0	54.5	25.5	64.0
2 INACTIVE	9	15	7	31
	29.0	48.4	22.6	36.0
COLUMN TOTAL	20	45	21	86
	23.3	52.3	24.4	100.0

KENDALL'S TAU C = -0.08329 SIGNIFICANCE (2-TAILED) = 0.5130

TABLE 87

PRTOIA Vs. PERMISSION TO USE OIA - TRANSPORTATION REQUIRED
(DIFFICULT)

PRTOIA	PROTRA1 2 (NE)	3 (D)	4 (SD)	5	ROW TOTAL
1 ACTIVE	1	1	7	2	11
	9.1	9.1	63.6	18.2	55.0
2 INACTIVE	0	2	5	2	9
	0.0	22.2	55.6	22.2	45.0
COLUMN TOTAL	1	3	12	4	20
	5.0	15.0	60.0	20.0	100.0

KENDALL'S TAU C = 0.02000 SIGNIFICANCE (2-TAILED) = 0.9541

TABLE 88

PRTOIA Vs. PERMISSION TO USE OIA - TRANSPORTATION REQUIRED (AVERAGE)

PRTOIA	COUNT / ROW PCT	PROTRA1 ISE 1	E 2	NE 3	D 4	ROW TOTAL
1 ACTIVE	1	4	15	10	1	30
		13.3	50.0	33.3	3.3	66.7
2 INACTIVE	2	0	6	6	3	15
		0.0	40.0	40.0	20.0	33.3
COLUMN TOTAL		4	21	16	4	45
		8.9	46.7	35.6	8.9	100.0

KENDALL'S TAU C = 0.30222 SIGNIFICANCE (2-TAILED) = 0.0578

TABLE 89

PRTOIA Vs. PERMISSION TO USE OIA - TRANSPORTATION REQUIRED (SIMPLE)

PRTOIA	CCUNT / ROW PCT	PROTRA1 ISE 1	E 2	NE 3	ROW TOTAL
1 ACTIVE	1	8	5	1	14
		57.1	35.7	7.1	66.7
2 INACTIVE	2	4	3	0	7
		57.1	42.9	0.0	33.3
COLUMN TOTAL		12	8	1	21
		57.1	38.1	4.8	100.0

KENDALL'S TAU C = -0.02721 SIGNIFICANCE (2-TAILED) = 0.9233

TABLE 90

PRTOIA Vs. DISTANCE LIMITATIONS

PRTOIA	DISLIM 1 VERY RESTRICT	2 SOME RESTRICT	3 LITTLE RESTRICT	ROW TOTAL
1 ACTIVE	5	36	14	55
	9.1	65.5	25.5	64.0
2 INACTIVE	6	19	6	31
	19.4	61.3	19.4	36.0
COLUMN TOTAL	11	55	20	86
	12.8	64.0	23.3	100.0

KENDALL'S TAU C = -0.12169 SIGNIFICANCE (2-TAILED) = 0.2821

TABLE 91

PRTOIA Vs. DISTANCE LIMITATIONS (VERY RESTRICTIVE)

PRTOIA	DISLIM1 1 VERY RESTRICTIVE	2 RESTRICTIVE	3 NEUTRAL	4 DESIRABLE	5 VERY DESIRABLE	ROW TOTAL
1 ACTIVE	0	1	0	1	3	5
	0.0	20.0	0.0	20.0	60.0	45.5
2 INACTIVE	1	0	1	2	2	6
	16.7	0.0	16.7	33.3	33.3	54.5
COLUMN TOTAL	1	1	1	3	5	11
	9.1	9.1	9.1	27.3	45.5	100.0

KENDALL'S TAU C = -0.26446 SIGNIFICANCE (2-TAILED) = 0.5217

TABLE 92

PRTOIA Vs. DISTANCE LIMITATIONS (SOME RESTRICTIONS)

PRTOIA	COUNT / ROW PCT	DISLIM1 ISE	E	NE	D	SD	ROW TOTAL
		1	2	3	4	5	
ACTIVE	1	2	5	20	8	1	36
		5.6	13.9	55.6	22.2	2.8	65.5
INACTIVE	2	0	3	9	7	0	19
		0.0	15.8	47.4	36.8	0.0	34.5
COLUMN TOTAL		2	8	29	15	1	55
		3.6	14.5	52.7	27.3	1.8	100.0

KENDALL'S TAU C = 0.10975 SIGNIFICANCE (2-TAILED) = 0.4597

TABLE 93

PRTOIA Vs. DISTANCE LIMITATIONS (LITTLE RESTRICTIONS)

PRTOIA	COUNT / ROW PCT	DISLIM1 ISE	E	NE	ROW TOTAL
		1	2	3	
ACTIVE	1	8	5	1	14
		57.1	35.7	7.1	70.0
INACTIVE	2	1	3	2	6
		16.7	50.0	33.3	30.0
COLUMN TOTAL		9	8	3	20
		45.0	40.0	15.0	100.0

KENDALL'S TAU C = 0.41000 SIGNIFICANCE (2-TAILED) = 0.1060

TABLE 94

PRTOIA Vs. MONEY AVAILABLE FOR TRANSPORTATION

	MONTRAN				
COUNT / ROW PCT	PLENTIFUL	ADEQUATE	INADEQUATE	ARE NOT SURE	ROW TOTAL
	1	2	3	4	
PRTOIA					
1 ACTIVE	4 / 7.3	22 / 40.0	24 / 43.6	5 / 9.1	55 / 64.0
2 INACTIVE	0 / 0.0	7 / 22.6	15 / 48.4	9 / 29.0	31 / 36.0
COLUMN TOTAL	4 / 4.7	29 / 33.7	39 / 45.3	14 / 16.3	86 / 100.0

KENDALL'S TAU C = 0.31909 SIGNIFICANCE (2-TAILED) = 0.0054

TABLE 95

PRTOIA Vs. MONEY AVAILABLE FOR TRANSPORTATION (PLENTIFUL)

	MONTRAN1	
COUNT / ROW PCT	WISE	ROW TOTAL
	1	
PRTOIA		
1 ACTIVE	4 / 100.0	4 / 100.0
COLUMN TOTAL	4 / 100.0	4 / 100.0

TABLE 96

PRTOIA Vs. MONEY AVAILABLE FOR TRANSPORTATION (ADEQUATE)

	MONTRAN1			
COUNT / ROW PCT	ISE	E	NE	ROW TOTAL
	1	2	3	
PRTOIA				
1 ACTIVE	3	11	8	22
	13.6	50.0	36.4	75.9
2 INACTIVE	2	3	2	7
	28.6	42.9	28.6	24.1
COLUMN TOTAL	5	14	10	29
	17.2	48.3	34.5	100.0

KENDALL'S TAU C = -0.11891 SIGNIFICANCE (2-TAILED) = 0.6221

TABLE 97

PRTOIA Vs. MONEY AVAILABLE FOR TRANSPORTATION (INADEQUATE)

	MONTRAN1				
COUNT / ROW PCT	ISE	NE	D	SD	ROW TOTAL
	1	3	4	5	
PRTOIA					
1 ACTIVE	1	5	11	7	24
	4.2	20.8	45.8	29.2	61.5
2 INACTIVE	1	3	9	2	15
	6.7	20.0	60.0	13.3	38.5
COLUMN TOTAL	2	8	20	9	39
	5.1	20.5	51.3	23.1	100.0

KENDALL'S TAU C = -0.12886 SIGNIFICANCE (2-TAILED) = 0.5045

TABLE 98

PRTOIA Vs. MONEY AVAILABLE FOR TRANSPORTATION (ARE NOT SURE)

COUNT / ROW PCT	MONTRAN1 3	4	ROW TOTAL
PRTOIA 1 ACTIVE	3	2	5
	60.0	40.0	35.7
2 INACTIVE	6	3	9
	66.7	33.3	64.3
COLUMN TOTAL	9	5	14
	64.3	35.7	100.0

KENDALL'S TAU C = -0.06122 SIGNIFICANCE (2-TAILED) = 0.7486

TABLE 99

PRTOIA Vs. LEGAL LIABILITY

COUNT / ROW PCT	LEGLIB YES 1	NO 2	ROW TOTAL
PRTOIA 1 ACTIVE	30	25	55
	54.5	45.5	64.0
2 INACTIVE	17	14	31
	54.8	45.2	36.0
COLUMN TOTAL	47	39	86
	54.7	45.3	100.0

KENDALL'S TAU C = -0.00270 SIGNIFICANCE (2-TAILED) = 0.8429

TABLE 100

PRTOIA Vs. LEGAL LIABILITY (YES)

PRTOIA	COUNT / ROW PCT	LEGLIB1 ISE (1)	E (2)	NE (3)	D (4)	SD (5)	ROW TOTAL
ACTIVE	1	4	4	5	14	3	30
		13.3	13.3	16.7	46.7	10.0	63.8
INACTIVE	2	2	2	4	8	1	17
		11.8	11.8	23.5	47.1	5.9	36.2
COLUMN TOTAL		6	6	9	22	4	47
		12.8	12.8	19.1	46.8	8.5	100.0

KENDALL'S TAU C = -0.03078 SIGNIFICANCE (2-TAILED) = 0.8959

TABLE 101

PRTOIA Vs. LEGAL LIABILITY (NO)

	LEGLIB1			
COUNT / ROW PCT	ISE	E	NE	ROW TOTAL
	1	2	3	
PRTOIA				
1 ACTIVE	6 / 24.0	7 / 28.0	12 / 48.0	25 / 64.1
2 INACTIVE	1 / 7.1	2 / 14.3	11 / 78.6	14 / 35.9
COLUMN TOTAL	7 / 17.9	9 / 23.1	23 / 59.0	39 / 100.0

KENDALL'S TAU C = 0.29454 SIGNIFICANCE (2-TAILED) = 0.0896

TABLE 102

PRTOIA Vs. AVAILABILITY OF REFERENCE MATERIAL

	AVRFMAT			
COUNT / ROW PCT	IEXCELLENT	AVERAGE	PCOR	ROW TOTAL
	1	2	3	
PRTOIA				
1 ACTIVE	13 / 23.6	26 / 47.3	16 / 29.1	55 / 64.0
2 INACTIVE	4 / 12.9	9 / 29.0	18 / 58.1	31 / 36.0
COLUMN TOTAL	17 / 19.8	35 / 40.7	34 / 39.5	86 / 100.0

KENDALL'S TAU C = 0.27420 SIGNIFICANCE (2-TAILED) = 0.0188

TABLE 103

PRTOIA Vs. AVAILABILITY OF REFERENCE MATERIAL (EXCELLENT)

PRTOIA	COUNT / ROW PCT	AVRFMAT1 ISE	E	ROW TOTAL
		1	2	
1 ACTIVE		7	6	13
		53.8	46.2	76.5
2 INACTIVE		2	2	4
		50.0	50.0	23.5
COLUMN TOTAL		9	8	17
		52.9	47.1	100.0

KENDALL'S TAU C = 0.02768 SIGNIFICANCE (2-TAILED) = 0.6709

TABLE 104

PRTOIA Vs. AVAILABILITY OF REFERENCE MATERIAL (AVERAGE)

PRTOIA	COUNT / ROW PCT	AVRFMAT1 ISE	E	NE	D		ROW TOTAL
		1	2	3	4		
1 ACTIVE		2	13	9	2		26
		7.7	50.0	34.6	7.7		74.3
2 INACTIVE		0	4	5	0		9
		0.0	44.4	55.6	0.0		25.7
COLUMN TOTAL		2	17	14	2		35
		5.7	48.6	40.0	5.7		100.0

KENDALL'S TAU C = 0.09469 SIGNIFICANCE (2-TAILED) = 0.6296

TABLE 105

PRTOIA Vs. AVAILABILITY OF REFERENCE MATERIAL (POOR)

PRTOIA	AVRFMAT1	1 ISE	3 NE	4 D	5 SD	ROW TOTAL
1 ACTIVE	COUNT	0	5	9	2	16
	ROW PCT	0.0	31.3	56.3	12.5	47.1
2 INACTIVE	COUNT	1	3	9	5	18
	ROW PCT	5.6	16.7	50.0	27.8	52.9
COLUMN TOTAL		1 2.9	8 23.5	18 52.9	7 20.6	34 100.0

KENDALL'S TAU C = 0.16609 SIGNIFICANCE (2-TAILED) = 0.4229

TABLE 106

PRTOIA Vs. AVAILABILITY OF OUTSIDE PERSONNEL

PRTOIA	AVOTPER	1 IPLENTIFUL	2 ADEQUATE	3 INADEQUATE	ROW TOTAL
1 ACTIVE	COUNT	3	34	14	51
	ROW PCT	5.9	66.7	27.5	68.9
2 INACTIVE	COUNT	0	14	9	23
	ROW PCT	0.0	60.9	39.1	31.1
COLUMN TOTAL		3 4.1	48 64.9	23 31.1	74 100.0

KENDALL'S TAU C = 0.13075 SIGNIFICANCE (2-TAILED) = 0.2616

NUMBER OF MISSING OBSERVATIONS = 12

TABLE 107

PRTOIA Vs. AVAILABILITY OF OUTSIDE PERSONNEL (PLENTIFUL)

PRTOIA	COUNT / ROW PCT	AVOTPER1 ISE 1	AVOTPER1 ISE 2	ROW TOTAL
1 ACTIVE		2	1	3
		66.7	33.3	100.0
COLUMN TOTAL		2	1	3
		66.7	33.3	100.0

TABLE 108

PRTOIA Vs. AVAILABILITY OF OUTSIDE PERSONNEL (ADEQUATE)

PRTOIA	COUNT / ROW PCT	AVOTPER1 ISE 1	2	3	4	ROW TOTAL
1 ACTIVE		3	23	6	2	34
		8.8	67.6	17.6	5.9	70.8
2 INACTIVE		2	7	5	0	14
		14.3	50.0	35.7	0.0	29.2
COLUMN TOTAL		5	30	11	2	48
		10.4	62.5	22.9	4.2	100.0

KENDALL'S TAU C = 0.03993 SIGNIFICANCE (2-TAILED) = 0.8435

TABLE 109

PRTOIA Vs. AVAILABILITY OF OUTSIDE PERSONNEL (INADEQUATE)

PRTOIA	AVOTPER1	3	4	5	ROW TOTAL
1 ACTIVE	COUNT	2	11	1	14
	ROW PCT	14.3	78.6	7.1	60.9
2 INACTIVE	COUNT	1	5	3	9
	ROW PCT	11.1	55.6	33.3	39.1
COLUMN TOTAL	COUNT	3	16	4	23
	PCT	13.0	69.6	17.4	100.0

KENDALL'S TAU C = 0.24197 SIGNIFICANCE (2-TAILED) = 0.3077

NUMBER OF MISSING OBSERVATIONS = 12

TABLE 110

PRTOIA Vs. AVAILABILITY OF OUTDOOR SITES

PRTOIA	AVOTSIT	1 YES	2 NO	3 ARE NOT SURE	ROW TOTAL
1 ACTIVE	COUNT	52	1	1	54
	ROW PCT	96.3	1.9	1.9	64.3
2 INACTIVE	COUNT	27	2	1	30
	ROW PCT	90.0	6.7	3.3	35.7
COLUMN TOTAL	COUNT	79	3	2	84
	PCT	94.0	3.6	2.4	100.0

KENDALL'S TAU C = 0.05726 SIGNIFICANCE (2-TAILED) = 0.3624

NUMBER OF MISSING OBSERVATIONS = 2

TABLE 111

PRTOIA Vs. AVAILABILITY OF OUTDOOR SITES (YES)

PRTOIA	COUNT / ROW PCT	AVOTSIT1 E	NE	D	ROW TOTAL
		1	2	3	4	
1 ACTIVE		18	32	1	1	52
		34.6	61.5	1.9	1.9	65.8
2 INACTIVE		3	23	1	0	27
		11.1	85.2	3.7	0.0	34.2
COLUMN TOTAL		21	55	2	1	79
		26.6	69.6	2.5	1.3	100.0

KENDALL'S TAU C = 0.20189 SIGNIFICANCE (2-TAILED) = 0.0519

TABLE 112

PRTOIA Vs. AVAILABILITY OF OUTDOOR SITES (NO)

PRTOIA	COUNT / ROW PCT	AVOTSIT1 ID	SD	ROW TOTAL
		4	5	
1 ACTIVE		0	1	1
		0.0	100.0	33.3
2 INACTIVE		1	1	2
		50.0	50.0	66.7
COLUMN TOTAL		1	2	3
		33.3	66.7	100.0

KENDALL'S TAU C = -0.44444

TABLE 113

PRTOIA Vs. USE OF OIA BY OTHER TEACHER IN YOUR SCHOOL

PRTOIA	COUNT / ROW PCT	OTHTEA: ISE	E	NE	D		ROW TOTAL
		1	2	3	4		
1 ACTIVE		7	18	24	6		55
		12.7	32.7	43.6	10.9		64.0
2 INACTIVE		1	10	14	6		31
		3.2	32.3	45.2	19.4		36.0
	CCLUMN TOTAL	8	28	38	12		86
		9.3	32.6	44.2	14.0		100.0

KENDALL'S TAU C = 0.15251 SIGNIFICANCE (2-TAILED) = 0.1984

TABLE 114

PRTOIA Vs. PRINCIPAL

PRTOIA	COUNT / ROW PCT	PRINCIPAL 1	2	3	4	5	ROW TOTAL
ACTIVE	1	8	27	17	1	1	54
		14.8	50.0	31.5	1.9	1.9	63.5
INACTIVE	2	2	9	16	4	0	31
		6.5	29.0	51.6	12.9	0.0	36.5
	COLUMN TOTAL	10	36	33	5	1	85
		11.8	42.4	38.8	5.9	1.2	100.0

KENDALL'S TAU C = 0.29952 SIGNIFICANCE (2-TAILED) = 0.0092

NUMBER OF MISSING OBSERVATIONS = 1

TABLE 115

PRTOIA Vs. SUPERVISORY STAFF

PRTOIA	COUNT / ROW PCT	SUPSTF ISE	E	NE	D		ROW TOTAL
		1	2	3	4		
1 ACTIVE		4	23	27	1		55
		7.3	41.8	49.1	1.8		64.0
2 INACTIVE		2	3	22	4		31
		6.5	9.7	71.0	12.9		36.0
	CCLUMN TOTAL	6	26	49	5		86
		7.0	30.2	57.0	5.8		100.0

KENDALL'S TAU C = 0.33207 SIGNIFICANCE (2-TAILED) = 0.0024

TABLE 116

PRTOIA Vs. SCHOOL COMMUNITY

PRTOIA	COUNT / ROW PCT	SCHCOM ISE	E	NE	D		ROW TOTAL
		1	2	3	4		
1 ACTIVE		5	23	24	3		55
		9.1	41.8	43.6	5.5		64.0
2 INACTIVE		3	12	16	0		31
		9.7	38.7	51.6	0.0		36.0
	COLUMN TOTAL	8	35	40	3		86
		9.3	40.7	46.5	3.5		100.0

KENDALL'S TAU C = -0.00757 SIGNIFICANCE (2-TAILED) = 0.9987

TABLE 117

PRTOIA Vs. SCHOOL BOARD MEMBERS

PRTOIA	CCUNT / ROW PCT	SCHBDM ISE (1)	E (2)	NE (3)	D (4)	SD (5)	ROW TOTAL
1 ACTIVE		1	11	37	4	2	55
		1.8	20.0	67.3	7.3	3.6	64.0
2 INACTIVE		0	5	21	3	2	31
		0.0	16.1	67.7	9.7	6.5	36.0
COLUMN TOTAL		1	16	58	7	4	86
		1.2	18.6	67.4	8.1	4.7	100.0

KENDALL'S TAU C = 0.08816 SIGNIFICANCE (2-TAILED) = 0.4085

TABLE 118

PRTOIA Vs. LOCAL NEWSPAPER COVERAGE OF OIA

PRTOIA	COUNT / ROW PCT	LOCNEWS 2	3	4	5	ROW TOTAL
1 ACTIVE		14	39	1	1	55
		25.5	70.9	1.8	1.8	64.0
2 INACTIVE		3	25	3	0	31
		9.7	80.6	9.7	0.0	36.0
COLUMN TOTAL		17	64	4	1	86
		19.8	74.4	4.7	1.2	100.0

KENDALL'S TAU C = 0.18010 SIGNIFICANCE (2-TAILED) = 0.0599

TABLE 119

PRTOIA Vs. NATIONAL MEDIA COVERAGE OF OIA

PRTOIA		NATMED 1	E 2	NE 3	D 4	SD 5	ROW TOTAL
ACTIVE	1	1	8	42	2	2	55
		1.8	14.5	76.4	3.6	3.6	64.0
INACTIVE	2	0	5	24	2	0	31
		0.0	16.1	77.4	6.5	0.0	36.0
COLUMN TOTAL		1	13	66	4	2	86
		1.2	15.1	76.7	4.7	2.3	100.0

KENDALL'S TAU C = -0.00379 SIGNIFICANCE (2-TAILED) = 0.9818

TABLE 120

PRTOIA Vs. DEPARTMENT OF EDUCATION

		DEPTED					
	COUNT / ROW PCT	ISE 1	E 2	NE 3	D 4	SD 5	ROW TOTAL
PRTOIA							
ACTIVE	1	1	10	42	1	1	55
		1.8	18.2	76.4	1.8	1.8	64.0
INACTIVE	2	0	3	25	3	0	31
		0.0	9.7	80.6	9.7	0.0	36.0
	CCLUMN TOTAL	1	13	67	4	1	86
		1.2	15.1	77.9	4.7	1.2	100.0

KENDALL'S TAU C = 0.13629 SIGNIFICANCE (2-TAILED) = 0.1338

TABLE 121

PRTOIA Vs. ALBERTA TEACHERS ASSOCIATION

PRTOIA	COUNT / ROW PCT	ATA ISE	E	NE	ROW TOTAL
		1	2	3	
ACTIVE	1	2	20	33	55
		3.6	36.4	60.0	64.0
INACTIVE	2	1	9	21	31
		3.2	29.0	67.7	36.0
COLUMN TOTAL		3	29	54	86
		3.5	33.7	62.8	100.0

KENDALL'S TAU C = 0.07031 SIGNIFICANCE (2-TAILED) = 0.5637

TABLE 122

PRTOIA VS. EDUCATIONAL MAGAZINES

PRTOIA	COUNT / ROW PCT	EDMAG ISE	E	NE	ROW TOTAL
		1	2	3	
ACTIVE	1	4	28	23	55
		7.3	50.9	41.8	64.0
INACTIVE	2	0	21	10	31
		0.0	67.7	32.3	36.0
COLUMN TOTAL		4	49	33	86
		4.7	57.0	38.4	100.0

KENDALL'S TAU C = -0.04273 SIGNIFICANCE (2-TAILED) = 0.7665

TABLE 123

PRTOIA Vs. EDUCATIONAL VALUE OF OIA

PRTOIA	COUNT / ROW PCT	EDVLOIA ISE	E	NE	ROW TOTAL
		1	2	3	
ACTIVE	1	34	20	1	55
		61.8	36.4	1.8	64.0
INACTIVE	2	16	12	3	31
		51.6	38.7	9.7	36.0
	COLUMN TOTAL	50	32	4	86
		58.1	37.2	4.7	100.0

KENDALL'S TAU C = 0.12006 SIGNIFICANCE (2-TAILED) = 0.2984

TABLE 124

PRTOIA Vs. TIME REQUIRED FOR LESSON PREPARATION

PRTOIA	COUNT / ROW PCT	TLESPRP 1 ISE	2 E	3 NE	4 D	5 SD	ROW TOTAL
1 ACTIVE		3	8	26	12	6	55
		5.5	14.5	47.3	21.8	10.9	64.0
2 INACTIVE		1	3	11	13	3	31
		3.2	9.7	35.5	41.9	9.7	36.0
	COLUMN TOTAL	4	11	37	25	9	86
		4.7	12.8	43.0	29.1	10.5	100.0

KENDALL'S TAU C = 0.16117 SIGNIFICANCE (2-TAILED) = 0.1715

TABLE 125

PRTOIA Vs. EFFECT ON STUDENT INTEREST

PRTOIA	EFSTINT	1	2	3	ROW TOTAL
1 ACTIVE	COUNT	30	25	0	55
	ROW PCT	54.5	45.5	0.0	64.0
2 INACTIVE	COUNT	8	21	2	31
	ROW PCT	25.8	67.7	6.5	36.0
COLUMN TOTAL		38	46	2	86
		44.2	53.5	2.3	100.0

KENDALL'S TAU C = 0.29205 SIGNIFICANCE (2-TAILED) = 0.0075

TABLE 126

PRTOIA Vs. RESULTS OF PREVIOUS EXPERIENCES

PRTOIA	COUNT / ROW PCT	REPEXP 1	2	3	4	ROW TOTAL
ACTIVE	1	27	26	1	1	55
		49.1	47.3	1.8	1.8	64.0
INACTIVE	2	10	13	7	1	31
		32.3	41.9	22.6	3.2	36.0
COLUMN TOTAL		37	39	8	2	86
		43.0	45.3	9.3	2.3	100.0

KENDALL'S TAU C = 0.25041 SIGNIFICANCE (2-TAILED) = 0.0264

TABLE 127

PRTOIA Vs. EFFECT ON CLASSROOM ROUTINE

PRTOIA	COUNT / ROW PCT	EFCLRT 1	2	3	4	5	ROW TOTAL
ACTIVE	1	16	24	8	5	2	55
		29.1	43.6	14.5	9.1	3.6	64.0
INACTIVE	2	5	12	7	3	4	31
		16.1	38.7	22.6	9.7	12.9	36.0
COLUMN TOTAL		21	36	15	8	6	86
		24.4	41.9	17.4	9.3	7.0	100.0

KENDALL'S TAU C = 0.21525 SIGNIFICANCE (2-TAILED) = 0.0673

TABLE 128

PRTOIA Vs. DEMAND FOR ENVIRONMENTAL AWARENESS

PRTOIA	DENVAW: 1	2	3	4	ROW TOTAL
1 ACTIVE	29	21	2	3	55
	52.7	38.2	3.6	5.5	64.0
2 INACTIVE	14	13	4	0	31
	45.2	41.9	12.9	0.0	36.0
COLUMN TOTAL	43	34	6	3	86
	50.0	39.5	7.0	3.5	100.0

KENDALL'S TAU C = 0.07355 SIGNIFICANCE (2-TAILED) = 0.5439

TABLE 129

PRTOIA Vs. TIMETABLING

PRTOIA	TIMTAB: 2	3	4	5	ROW TOTAL
1 ACTIVE	2	29	18	6	55
	3.6	52.7	32.7	10.9	64.0
2 INACTIVE	3	9	14	5	31
	9.7	29.0	45.2	16.1	36.0
COLUMN TOTAL	5	38	32	11	86
	5.8	44.2	37.2	12.8	100.0

KENDALL'S TAU C = 0.12872 SIGNIFICANCE (2-TAILED) = 0.2781

TABLE 130

PRTOIA Vs. USE OF SUBSTITUTE TEACHERS

		SUBTEA					
	COUNT / ROW PCT	IE	NE	D	SD		ROW TOTAL
		2	3	4	5		
PRTOIA							
ACTIVE	1	7	27	16	5		55
		12.7	49.1	29.1	9.1		64.0
INACTIVE	2	2	13	9	7		31
		6.5	41.9	29.0	22.6		36.0
	COLUMN TOTAL	9	40	25	12		86
		10.5	46.5	29.1	14.0		100.0

KENDALL'S TAU C = 0.18010 SIGNIFICANCE (2-TAILED) = 0.1247

TABLE 131

PRTOIA Vs. WEATHER

		WEATH					
	COUNT / ROW PCT	IE	NE	D	SD		ROW TOTAL
		2	3	4	5		
PRTOIA							
ACTIVE	1	9	33	11	2		55
		16.4	60.0	20.0	3.6		64.0
INACTIVE	2	2	16	10	3		31
		6.5	51.6	32.3	9.7		36.0
	COLUMN TOTAL	11	49	21	5		86
		12.8	57.0	24.4	5.8		100.0

KENDALL'S TAU C = 0.21796 SIGNIFICANCE (2-TAILED) = 0.0504

TABLE 132

PRTOIA Vs. STUDENT ATTITUDE TOWARDS OIA

PRTOIA	COUNT / ROW PCT	ATTSTUD ISE (1)	E (2)	NE (3)	D (4)	SD (5)	ROW TOTAL
1		24	27	1	2	0	54
ACTIVE		44.4	50.0	1.9	3.7	0.0	63.5
2		6	22	0	1	2	31
INACTIVE		19.4	71.0	0.0	3.2	6.5	36.5
COLUMN TOTAL		30	49	1	3	2	85
		35.3	57.6	1.2	3.5	2.4	100.0

KENDALL'S TAU C = 0.24471 SIGNIFICANCE (2-TAILED) = 0.0243

NUMBER OF MISSING OBSERVATIONS = 1

TABLE 133

PRTOIA Vs. RELATIONSHIP BETWEEN PERSONAL PHILOSOPHY AND OIA

PRTOIA	COUNT / ROW PCT	ROIAPP ISE (1)	E (2)	NE (3)	SD (5)	ROW TOTAL
1 ACTIVE		30	24	0	1	55
		54.5	43.6	0.0	1.8	64.0
2 INACTIVE		13	16	2	0	31
		41.9	51.6	6.5	0.0	36.0
CCLUMN TOTAL		43	40	2	1	86
		50.0	46.5	2.3	1.2	100.0

KENDALL'S TAU C = 0.13250 SIGNIFICANCE (2-TAILED) = 0.2385

TABLE 134

PRTOIA Vs. RELATIONSHIP BETWEEN OIA AND CLASSWORK

PRTOIA	COUNT / ROW PCT	ROIACLW GOOD (1)	FAIR (2)	POOR (3)	ROW TOTAL
1 ACTIVE		37	16	2	55
		67.3	29.1	3.6	64.0
2 INACTIVE		18	12	1	31
		58.1	38.7	3.2	36.0
CCLUMN TOTAL		55	28	3	86
		64.0	32.6	3.5	100.0

KENDALL'S TAU C = 0.08058 SIGNIFICANCE (2-TAILED) = 0.4944

TABLE 135

PRTOIA Vs. RELATIONSHIP BETWEEN OIA AND CLASSWORK (GOOD)

	ROIACLW1			
COUNT / ROW PCT	ISE	E	NE	ROW TOTAL
	1	2	3	
PRTOIA				
1 ACTIVE	15	20	2	37
	40.5	54.1	5.4	67.3
2 INACTIVE	6	9	3	18
	33.3	50.0	16.7	32.7
COLUMN TOTAL	21	29	5	55
	38.2	52.7	9.1	100.0

KENDALL'S TAU C = 0.11901 SIGNIFICANCE (2-TAILED) = 0.4437

TABLE 136

PRTOIA Vs. RELATIONSHIP BETWEEN OIA AND CLASSWORK (FAIR)

	ROIACLW1				
COUNT / ROW PCT	ISE	E	NE	D	ROW TOTAL
	1	2	3	4	
PRTOIA					
1 ACTIVE	2	5	7	2	16
	12.5	31.3	43.8	12.5	57.1
2 INACTIVE	1	6	3	2	12
	8.3	50.0	25.0	16.7	42.9
COLUMN TOTAL	3	11	10	4	28
	10.7	39.3	35.7	14.3	100.0

KENDALL'S TAU C = -0.06633 SIGNIFICANCE (2-TAILED) = 0.8376

TABLE 137

PRTOIA Vs. RELATIONSHIP BETWEEN OIA AND CLASSWORK (POOR)

		ROIACLW1	
	COUNT / ROW PCT	3	ROW TOTAL
PRTOIA			
1 ACTIVE		2	2
		100.0	66.7
2 INACTIVE		1	1
		100.0	33.3
	COLUMN TOTAL	3	3
		100.0	100.0

TABLE 138

PRTOIA Vs. KNOWLEDGE OF OIA

		OIACURA			
	COUNT / ROW PCT	1 GOOD	2 FAIR	3 POOR	ROW TOTAL
PRTOIA					
1 ACTIVE		32	20	3	55
		58.2	36.4	5.5	64.0
2 INACTIVE		8	15	8	31
		25.8	48.4	25.8	36.0
	COLUMN TOTAL	40	35	11	86
		46.5	40.7	12.8	100.0

KENDALL'S TAU C = 0.36074 SIGNIFICANCE (2-TAILED) = 0.0014

TABLE 139

PRTOIA Vs. KNOWLEDGE OF OIA (GOOD)

		OIACURA1				
	COUNT / ROW PCT	ISE 1	E 2	NE 3		ROW TOTAL
PRTOIA						
1 ACTIVE		14	17	1		32
		43.8	53.1	3.1		80.0
2 INACTIVE		3	4	1		8
		37.5	50.0	12.5		20.0
	COLUMN TOTAL	17	21	2		40
		42.5	52.5	5.0		100.0

KENDALL'S TAU C = 0.07250 SIGNIFICANCE (2-TAILED) = 0.7159

TABLE 140

PRTOIA Vs. KNOWLEDGE OF OIA (FAIR)

		OIACURA1				
	COUNT / ROW PCT	ISE 1	E 2	NE 3	D 4	ROW TOTAL
PRTOIA						
1 ACTIVE		1	12	5	2	20
		5.0	60.0	25.0	10.0	57.1
2 INACTIVE		0	6	6	3	15
		0.0	40.0	40.0	20.0	42.9
	COLUMN TOTAL	1	18	11	5	35
		2.9	51.4	31.4	14.3	100.0

KENDALL'S TAU C = 0.27429 SIGNIFICANCE (2-TAILED) = 0.1529

TABLE 141

PRTOIA Vs. KNOWLEDGE OF OIA (POOR)

PRTOIA		OIACURA1 1	3	4	5	ROW TOTAL
ACTIVE	1	0	1	1	1	3
		0.0	33.3	33.3	33.3	27.3
INACTIVE	2	1	3	3	1	8
		12.5	37.5	37.5	12.5	72.7
COLUMN TOTAL		1	4	4	2	11
		9.1	36.4	36.4	18.2	100.0

KENDALL'S TAU C = -0.23140 SIGNIFICANCE (2-TAILED) = 0.5793

TABLE 142

PRTOIA Vs. UNDERSTANDING OF NATURAL ENVIRONMENT

PRTOIA		UNATENV 1	2	3	ROW TOTAL
ACTIVE	1	34	19	2	55
		61.8	34.5	3.6	64.0
INACTIVE	2	13	16	2	31
		41.9	51.6	6.5	36.0
CCLUMN TOTAL		47	35	4	86
		54.7	40.7	4.7	100.0

KENDALL'S TAU C = 0.18659 SIGNIFICANCE (2-TAILED) = 0.0972

TABLE 143

PRTOIA Vs. UNDERSTANDING OF NATURAL ENVIRONMENT (GOOD)

PRTOIA	UNATENV1 1	2	3	ROW TOTAL
1 ACTIVE	17	16	1	34
	50.0	47.1	2.9	72.3
2 INACTIVE	4	9	0	13
	30.8	69.2	0.0	27.7
COLUMN TOTAL	21	25	1	47
	44.7	53.2	2.1	100.0

KENDALL'S TAU C = 0.13762 SIGNIFICANCE (2-TAILED) = 0.3810

TABLE 144

PRTOIA Vs. UNDERSTANDING OF NATURAL ENVIRONMENT (FAIR)

PRTOIA	UNATENV1 1	2	3	4	ROW TOTAL
1 ACTIVE	2	14	1	2	19
	10.5	73.7	5.3	10.5	54.3
2 INACTIVE	2	5	4	5	16
	12.5	31.3	25.0	31.3	45.7
COLUMN TOTAL	4	19	5	7	35
	11.4	54.3	14.3	20.0	100.0

KENDALL'S TAU C = 0.33306 SIGNIFICANCE (2-TAILED) = 0.0802

TABLE 145

PRTOIA Vs. UNDERSTANDING OF NATURAL ENVIRONMENT (POOR)

PRTOIA	COUNT / ROW PCT	UNATENV1 4	ROW TOTAL
1 ACTIVE		2	2
		100.0	50.0
2 INACTIVE		2	2
		100.0	50.0
COLUMN TOTAL		4	4
		100.0	100.0

TABLE 146

PRTOIA Vs. ABILITY TO PREPARE CLASS FOR OIA

PRTOIA	COUNT / ROW PCT	PRCLOIA 1 GOOD	2 FAIR	3 POOR	ROW TOTAL
1 ACTIVE		41	12	2	55
		74.5	21.8	3.6	64.0
2 INACTIVE		17	10	4	31
		54.8	32.3	12.9	36.0
COLUMN TOTAL		58	22	6	86
		67.4	25.6	7.0	100.0

KENDALL'S TAU C = 0.19686 SIGNIFICANCE (2-TAILED) = 0.0611

TABLE 147

PRTOIA Vs. ABILITY TO PREPARE CLASS FOR OIA (GOOD)

PRTOIA	COUNT / ROW PCT	PRCLOIA1 ISE	E	NE	ROW TOTAL
		1	2	3	
1 ACTIVE		16	24	1	41
		39.0	58.5	2.4	70.7
2 INACTIVE		6	10	1	17
		35.3	58.8	5.9	29.3
COLUMN TOTAL		22	34	2	58
		37.9	58.6	3.4	100.0

KENDALL'S TAU C = 0.04756 SIGNIFICANCE (2-TAILED) = 0.8007

TABLE 148

PRTOIA Vs. ABILITY TO PREPARE CLASS FOR OIA (FAIR)

PRTOIA	COUNT / ROW PCT	PRCLOIA1 IE	NE	ROW TOTAL
		2	3	
1 ACTIVE		8	4	12
		66.7	33.3	54.5
2 INACTIVE		4	6	10
		40.0	60.0	45.5
CCLUMN TOTAL		12	10	22
		54.5	45.5	100.0

KENDALL'S TAU C = 0.26446 SIGNIFICANCE (2-TAILED) = 0.4226

TABLE 149

PRTOIA Vs. ABILITY TO PREPARE CLASS FOR OIA (POOR)

PRTOIA	COUNT / ROW PCT	PRCLOIA1 IE	NE	D		ROW TOTAL
		1	2	3	4	
ACTIVE	1	1	1	0	1	2
		50.0	0.0	50.0		33.3
INACTIVE	2	0	1	3	4	4
		0.0	25.0	75.0		66.7
COLUMN TOTAL		1	1	4		6
		16.7	16.7	66.7		*100.0

KENDALL'S TAU C = 0.33333

TABLE 150

PRTOIA Vs. ABILITY TO KEEP THE INTEREST AND ATTENTION OF THE CLASS

PRTOIA	COUNT / ROW PCT	INTATT IGOOD	FAIR	POOR	ROW TOTAL
		1	2	3	
ACTIVE	1	39	15	1	55
		70.9	27.3	1.8	64.0
INACTIVE	2	17	11	3	31
		54.8	35.5	9.7	36.0
COLUMN TOTAL		56	26	4	86
		65.1	30.2	4.7	100.0

KENDALL'S TAU C = 0.16658 SIGNIFICANCE (2-TAILED) = 0.1226

TABLE 151

PRTOIA Vs. ABILITY TO KEEP THE INTEREST AND ATTENTION OF THE CLASS (GOOD)

		INTATT1			
	COUNT / ROW PCT	ISE 1	E 2	NE 3	ROW TOTAL
PRTOIA					
1 ACTIVE		17	20	2	39
		43.6	51.3	5.1	69.6
2 INACTIVE		5	12	0	17
		29.4	70.6	0.0	30.4
	CCLUMN TOTAL	22	32	2	56
		39.3	57.1	3.6	100.0

KENDALL'S TAU C = 0.08929 SIGNIFICANCE (2-TAILED) = 0.5653

TABLE 152

PRTOIA Vs. ABILITY TO KEEP THE INTEREST AND ATTENTION OF THE CLASS (FAIR)

		INTATT1				
	COUNT / ROW PCT	ISE 1	E 2	NE 3	D 4	ROW TOTAL
PRTOIA						
1 ACTIVE		1	10	3	1	15
		6.7	66.7	20.0	6.7	57.7
2 INACTIVE		1	6	3	1	11
		9.1	54.5	27.3	9.1	42.3
	CCLUMN TOTAL	2	16	6	2	26
		7.7	61.5	23.1	7.7	100.0

KENDALL'S TAU C = 0.07101 SIGNIFICANCE (2-TAILED) = 0.8189

TABLE 153

PRTOIA Vs. ABILITY TO KEEP THE INTEREST AND ATTENTION OF THE CLASS (POOR)

		INTATT1	
	COUNT / ROW PCT	ID 4	ROW TOTAL
PRTOIA			
	1	1	1
ACTIVE		100.0	25.0
	2	3	3
INACTIVE		100.0	75.0
	COLUMN TOTAL	4 100.0	4 100.0

TABLE 154

PRTOIA Vs. ABILITY TO MAINTAIN PUPIL SAFETY

		PUPSAF			
	COUNT / ROW PCT	GOOD 1	FAIR 2	POOR 3	ROW TOTAL
PRTOIA					
	1	41	14	0	55
ACTIVE		74.5	25.5	0.0	64.0
	2	19	10	2	31
INACTIVE		61.3	32.3	6.5	36.0
	COLUMN TOTAL	60 69.8	24 27.9	2 2.3	86 100.0

KENDALL'S TAU C = 0.13737 SIGNIFICANCE (2-TAILED) = 0.1908

TABLE 155

PRTOIA Vs. ABILITY TO MAINTAIN PUPIL SAFETY (GOOD)

PRTOIA	COUNT / ROW PCT	PUPSAF1 ISE	E	NE	D		ROW TOTAL
		1	2	3	4		
1 ACTIVE		12	24	4	1		41
		29.3	58.5	9.8	2.4		68.3
2 INACTIVE		4	14	1	0		19
		21.1	73.7	5.3	0.0		31.7
	COLUMN TOTAL	16	38	5	1		60
		26.7	63.3	8.3	1.7		100.0

KENDALL'S TAU C = 0.01889 SIGNIFICANCE (2-TAILED) = 0.9480

TABLE 156

PRTOIA Vs. ABILITY TO MAINTAIN PUPIL SAFETY (FAIR)

PRTOIA	COUNT / ROW PCT	PUPSAF1 ISE	E	NE	D		ROW TOTAL
		1	2	3	4		
1 ACTIVE		0	6	2	5		13
		0.0	46.2	15.4	38.5		56.5
2 INACTIVE		1	4	3	2		10
		10.0	40.0	30.0	20.0		43.5
	COLUMN TOTAL	1	10	5	7		23
		4.3	43.5	21.7	30.4		100.0

KENDALL'S TAU C = -0.16635 SIGNIFICANCE (2-TAILED) = 0.5484

TABLE 157

PRTOIA Vs. ABILITY TO MAINTAIN PUPIL SAFETY (POOR)

		PUPSAF1	
	COUNT / ROW PCT	ID 4	ROW TOTAL
PRTOIA			
2 INACTIVE		2 / 100.0	2 / 100.0
	COLUMN TOTAL	2 / 100.0	2 / 100.0

NUMBER OF MISSING OBSERVATIONS = 1

TABLE 158

PRTOIL Vs. ABILITY TO VARY APPROACH

		VARAPP			
	COUNT / ROW PCT	GOOD 1	FAIR 2	POOR 3	ROW TOTAL
PRTOIA					
1 ACTIVE		40 / 72.7	14 / 25.5	1 / 1.8	55 / 64.0
2 INACTIVE		14 / 45.2	14 / 45.2	3 / 9.7	31 / 36.0
	COLUMN TOTAL	54 / 62.8	28 / 32.6	4 / 4.7	86 / 100.0

KENDALL'S TAU C = 0.26933 SIGNIFICANCE (2-TAILED) = 0.0114

TABLE 159

PRTOIA Vs. ABILITY TO VARY APPROACH (GOOD)

		VARAPP1			
COUNT / ROW PCT	ISE	E	NE		ROW TOTAL
		1	2	3	
PRTOIA					
1 ACTIVE		14	23	3	40
		35.0	57.5	7.5	74.1
2 INACTIVE		4	9	1	14
		28.6	64.3	7.1	25.9
COLUMN TOTAL		18	32	4	54
		33.3	59.3	7.4	100.0

KENDALL'S TAU C = 0.04390 SIGNIFICANCE (2-TAILED) = 0.8335

TABLE 160

PRTOIA Vs. ABILITY TO VARY APPROACH (FAIR)

		VARAPP1				
COUNT / ROW PCT	ISE	E	NE	D		ROW TOTAL
		1	2	3	4	
PRTOIA						
1 ACTIVE		0	7	5	2	14
		0.0	50.0	35.7	14.3	50.0
2 INACTIVE		1	6	7	0	14
		7.1	42.9	50.0	0.0	50.0
COLUMN TOTAL		1	13	12	2	28
		3.6	46.4	42.9	7.1	100.0

KENDALL'S TAU C = -0.10714 SIGNIFICANCE (2-TAILED) = 0.6789

TABLE 161

PRTOIA Vs. ABILITY TO VARY APPROACH (POOR)

PRTOIA	COUNT / ROW PCT	VARAPP1 ISE	NE	D		ROW TOTAL
		1	3	4		
ACTIVE	1	0	0	1		1
		0.0	0.0	100.0		25.0
INACTIVE	2	1	1	1		3
		33.3	33.3	33.3		75.0
	COLUMN TOTAL	1	1	2		4
		25.0	25.0	50.0		100.0

KENDALL'S TAU C = -0.50000

TABLE 162

PRTOIA Vs. ABILITY TO USE EVALUATIVE TECHNIQUES

PRTOIA	COUNT / ROW PCT	EVALTEC IGOOD	FAIR	POOR		ROW TOTAL
		1	2	3		
ACTIVE	1	21	29	5		55
		38.2	52.7	9.1		64.0
INACTIVE	2	7	20	4		31
		22.6	64.5	12.9		36.0
	COLUMN TOTAL	28	49	9		86
		32.6	57.0	10.5		100.0

KENDALL'S TAU C = 0.15251 SIGNIFICANCE (2-TAILED) = 0.1845

TABLE 163

PRTOIA Vs. ABILITY TO USE EVALUATIVE TECHNIQUES (GOOD)

	EVALTEC1				
COUNT / ROW PCT	ISE	E	NE		ROW TOTAL
	1	2	3		
PRTOIA 1 ACTIVE	9	10	2		21
	42.9	47.6	9.5		75.0
2 INACTIVE	2	5	0		7
	28.6	71.4	0.0		25.0
COLUMN TOTAL	11	15	2		28
	39.3	53.6	7.1		100.0

KENDALL'S TAU C = 0.05612 SIGNIFICANCE (2-TAILED) = 0.9047

TABLE 164

PRTOIA Vs. ABILITY TO USE EVALUATIVE TECHNIQUES (FAIR)

	EVALTEC1				
COUNT / ROW PCT	IE	NE	D		ROW TOTAL
	2	3	4		
PRTOIA 1 ACTIVE	18	11	0		29
	62.1	37.9	0.0		59.2
2 INACTIVE	8	11	1		20
	40.0	55.0	5.0		40.8
CCLUMN TOTAL	26	22	1		49
	53.1	44.9	2.0		100.0

KENDALL'S TAU C = 0.23157 SIGNIFICANCE (2-TAILED) = 0.1393

TABLE 165

PRTOIA Vs. ABILITY TO USE EVALUATIVE TECHNIQUES (POOR)

		EVALTEC1				
	COUNT / ROW PCT	ISE	NE	D		ROW TOTAL
		1	3	4		
PRTOIA						
ACTIVE	1	0	2	3		5
		0.0	40.0	60.0		55.6
INACTIVE	2	1	2	1		4
		25.0	50.0	25.0		44.4
	COLUMN TOTAL	1	4	4		9
		11.1	44.4	44.4		100.0

KENDALL'S TAU C = -0.44444